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The Benefits of Study Support: A Review of Opinion and Research

*Caroline Sharp, Jayne Osgood and Nicola Flanagan
National Foundation for Educational Research*

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CONTENTS

	Page
Acknowledgements	i
Executive Summary	iii
Section 1: Overview of the Findings from the Review	1
Introduction	1
Aims of the review	1
Report outline	2
Definition of study support	2
Research methods	3
What are thought to be the benefits of study support to young people?	3
What are thought to be the benefits to others, such as teachers and parents?	4
What is the evidence that study support benefits young people?	5
Curriculum enrichment and curriculum extension	7
What are the benefits of curriculum enrichment?	8
What are the benefits of curriculum extension?	9
Summer schools and universities	11
Mentoring schemes	13
Discussion and conclusions	14
Section 2: Bibliography of Descriptive Reports and Practical Guides	21
Table 2.1: Summary of descriptive reports and practical guides	22
Reviews of descriptive reports and practical guides	31
Section 3: Bibliography of Research Studies	75
Note on statistical significance and effect size	76
Table 3.1: Summary of research studies	77
Reviews of research studies	87
References	157
Appendix: Research Methods	163

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Executive Summary

This review was commissioned by the Department for Education and Employment and conducted by the National Foundation for Educational Research (NFER). Given the proposed expansion in study support, it seems timely to examine what is known about the benefits of this type of provision.

The term ‘study support’ is difficult to define precisely, not least because work in this area is evolving in response to developments in policy and practice. However, from an examination of a recent DFEE publication on this area (GB. DFEE, 1998a), it is clear that study support activities share certain key characteristics. They are aimed at children of school age, and take place outside of normal school hours. Most of study support schemes are based in schools, the activities are open to a group of pupils, and attendance is voluntary. The purpose of the activities is to assist pupils’ learning, raise achievement, and/or to promote positive personal and social development. Study support encompasses a wide range of activities, including those that are closely related to learning and the school curriculum, as well as activities designed to raise self-esteem and improve motivation.

This report is based on a review of 62 project descriptions and research studies published in the last ten years, and on a series of interviews with ten experts in the field of study support. Most of the literature originated in the UK, although there was a small amount from the USA. The research studies ranged from small-scale evaluations of specific initiatives to large-scale quantitative studies and meta-analyses (i.e. statistical studies drawing together the findings from a number of separate research studies within a particular field). The majority of the research studies and descriptive reports concerned or included secondary-age students.

The expert interviewees included representatives from organisations with a national brief for the development of study support, together with individuals who had experience of evaluating study support projects.

What are considered to be the benefits of study support?

The experts we interviewed identified a range of benefits of study support for the young people and others involved.

- Study support can help young people to develop their personal and interpersonal skills. The enjoyable nature of study support can bring about improvements in young people’s self-esteem and motivation to learn.
- Study support gives young people opportunities to develop particular interests and skills in areas such as arts, sports or foreign languages.
- Study support contributes to improvements in pupils’ academic achievement and progress at school.
- For pupils from disadvantaged backgrounds, study support provides opportunities to study in a safe environment, and gives them access to resources not available at home.

- Some initiatives are aimed at pupils in particular need of support. For example, help can be provided for pupils with reading problems through schemes offering intensive support outside of school time.
- Teachers benefit from taking part in study support because it provides opportunities to pursue a wide range of interests. They develop better relationships with pupils and are able to adopt different roles (e.g. that of facilitator or mentor).
- Our experts suggested that study support may benefit parents by improving communication with the school. Parents are pleased that their children have additional opportunities for learning in a safe environment.
- Schools offering study support benefit from whole-school improvements (e.g. in attendance, motivation and academic results) and find that study support attracts new parents to the school.
- The community benefits where study support forges links between community groups, and there may be benefits from improvements in young people's behaviour (e.g. a reduction in vandalism and graffiti).

What is the evidence that study support benefits young people?

Research into young people's leisure experiences suggests that pupils who take part in a range of activities are better motivated and achieve better results at school (Bradford Brown and Steinberg, 1991; Brooks *et al.*, 1997; Camp, 1990; Marsh, 1988, 1992; Posner and Vandell, 1994). The research suggests that organised activities help to improve self-esteem (Marsh, 1988, 1992) and may provide an alternative to deviancy for some children (Posner and Vandell, 1994).

The review identified four different types of study support activity that may be used alone or in combination: curriculum extension; curriculum enrichment; summer schools/universities; and mentoring.

Curriculum extension

Curriculum *extension* activities can be defined as those most directly related to academic study, such as homework clubs, study skills, revision schemes and other types of curriculum support.

There were five research studies focusing on curriculum extension provision, one of which was carried out in the USA. In this US study (Posner and Vandell, 1994) the authors found that time spent by children in academic activities after school was significantly related to good ratings of behaviour and relationships with peers. Four studies of curriculum extension were carried out in this country. Students reported gains in self-esteem, confidence and motivation, and relationships between teachers and pupils improved (MacBeath 1993, Pocklington, 1996). There was evidence from two studies that students who attended Easter revision classes achieved better GCSE grades than those who did not attend (Pocklington, 1996; Tower Hamlets Study Support Project, 1997). In a study of secondary schools and colleges, (Woolnough, 1991, 1994) found a correlation between participation in extra-curricular science activities (such as visits, work-experience and science competitions) and a student's desire to study science or engineering at HE level.

Curriculum enrichment

Although there is considerable overlap between enrichment and extension in practice, curriculum *enrichment* activities are generally less closely related to academic study. They include activities such as arts, sports, community service, cultural visits and outward bound courses. The primary intention of curriculum enrichment is to broaden opportunities, develop personal and social skills, improve attitudes to learning and to enhance self-esteem.

There were few research studies focusing specifically on curriculum enrichment activities. However, a meta-analysis of 96 studies on outward bound courses (including those designed for adults as well as for young people) found evidence of significant immediate and longer-term effects, leading to improvements in personal qualities such as leadership, independence, emotional stability and assertiveness (Hattie *et al.*, 1997). There was mixed evidence from three US studies. Participation in clubs and societies was consistently associated with positive outcomes, but one study reached negative conclusions about the effects of competitive sports and performing arts participation (Bradford Brown and Steinberg, 1991) whereas two others found that sports and arts activities were associated with positive effects (Marsh, 1988, 1992; Posner and Vandell, 1994).

A study conducted in England (Barber *et al.*, 1997) suggested that students' involvement in curriculum enrichment activities may be a feature of particularly effective schools. A further study of sports and arts provision in one school suggested that students who did not take part in these activities performed less well at GCSE (Watts and Hillman, 1997).

Summer schools

There were two evaluations of the pilot Summer Literacy Schools initiative, which aimed to improve the literacy skills of pupils in Year 6 who had not met the national standard in English. Fifty centres were established in secondary schools, each providing 50 hours of tuition during the summer holidays.

Both of the evaluations drew attention to the positive effects of the Literacy Schools on pupils' attitudes to reading and on their confidence in coping with the transfer to secondary school. However, the two reports reached somewhat different conclusions about the pupils' academic gains. The first evaluation (Andrews, 1997) drew on assessment information from some of the centres. The results indicated that children had made progress in reading and spelling during the scheme. The second evaluation, (Sainsbury *et al.*, 1997, 1998) assessed children's progress in English between the Key Stage 2 assessments in May and a re-test in September. There was evidence of a general decline in scores from pre- to post-test, and children who attended the summer schools did not make better progress than children who had not attended. One explanation put forward for these apparently contradictory results is that attendance at the summer schools temporarily boosted the children's English attainment, but that this was undermined by a subsequent loss in attainment over the rest of the summer holiday period.

The existence of 'summer loss' was highlighted in a meta-analysis of 13 studies conducted in the USA (Cooper *et al.*, 1996). The researchers concluded that the long summer break has a detrimental effect on pupil progress (amounting to a decline in progress of about a month). Losses were greater for areas of factual and procedural learning (e.g. mathematics and spelling) than for conceptual understanding (e.g. reading). The reading scores of children from working-class backgrounds tended to deteriorate over the summer break, whereas those of middle class children improved. The authors suggest that this may result from children's differential access to reading and language learning opportunities during the summer break.

Mentoring schemes

There were several reports of mentoring schemes, in which adults who are not teachers offer advice and support to young people.

Miller (1998) studied mentoring schemes operating in seven English secondary schools. The findings indicated that mentored students performed slightly better at GCSE (relative to their predicted scores) than did a similar group of students who had not participated in the mentoring schemes.

Tierney *et al.*, (1995) conducted an evaluation of a national mentoring scheme in the USA. The evaluation adopted an experimental design, with random allocation of student volunteers to either a treatment (mentored) or control (not mentored) condition. The study found a statistically significant difference in academic achievement favouring the mentored students. There were also significant differences in behaviour and attitudes. Mentored students indicated that they were less likely to initiate drug and alcohol use, and reported better relationships with their parents than did the controls.

Conclusions and recommendations

The review has found a consistently positive picture of study support. Study support is considered to offer a range of benefits to young people in relation to social, personal and academic development. There would appear to be a particular need for access to study support for children from disadvantaged backgrounds.

The research evidence tends to confirm that study support is achieving its aims and is helpful for a range of target audiences. However, it must be said that most of the research evidence for the positive effects of study support is suggestive, rather than conclusive. There are positive associations between participation in study support and the development of academic, personal and inter-personal skills, but it is not clear to what extent these can be ascribed to the influence of the programmes themselves. It is possible that the pupils who are selected or who choose to take part in study support activities differ from the general school population (e.g. in terms of academic achievement, motivation, family background). It is also possible that successful/innovative schools are more likely to offer study support activities.

The report contains a number of suggestions for good practice in setting up and running study support. There are also recommendations for further research,

including the need for more evaluation studies adopting an experimental or quasi-experimental design as well as for research employing qualitative methods.

Section 1: Overview of Findings from the Review

Introduction

The area of study support has attracted increasing interest in the past few years. The potential contribution of ‘out of school hours learning’ to school improvement was highlighted in the Government’s White Paper *Excellence in Schools*, which stated: ‘These activities raise pupils’ motivation, improve school skills and encourage participation in other activities’ (GB. Parliament. HoC, 1997a, Paragraph 30.). The White Paper went on to express the Government’s aspiration that all young people should have access to a range of activity in addition to normal classroom teaching and learning.

In the same month, the Government published a White Paper setting out its plans for the National Lottery (GB. Parliament. HoC, 1997b). This included proposals to establish the New Opportunities Fund to support three areas of education and health, including ‘out of school hours activities’. The document set the following target for out of school hours activities designed to help raise pupils achievement. ‘By 2001, we want high quality programmes of regular learning activities established in at least half of all secondary and a quarter of all primary schools’ (Paragraph 14).

More recently, the Government has published a consultation document focusing specifically on the area of study support (GB. DFEE, 1998a). This sets out the steps needed to achieve a national framework of provision, and explains how various bodies (e.g. central and local government, library services, business, youth and voluntary organisations) can contribute. The document contains many examples of study support projects and identifies some of the characteristics of effective provision. It is also interesting to note that study support (as part of a ‘wrap around school service’) features strongly in the first 25 successful bids for Education Action Zones, which are designed to be test-beds of educational innovation (GB. DFEE, 1998b).

Aims of the review

This review was commissioned by the Department for Education and Employment and conducted by the National Foundation for Educational Research (NFER). Given the proposed expansion in study support, it seemed timely to examine what is known about the benefits of this type of provision.

The aims of the review were to:

- provide a summary of the existing research and opinion on study support;
- identify the main findings of the research studies, highlighting the impact of study support on student attainment and behaviour;
- assess the impact of study support on school life, teachers and other relevant groups;
- evaluate the quality and robustness of existing research findings;
- identify areas for further research and development.

Report outline

In order to fulfil these aims, this report provides an over-view of the perceived benefits of study support, and presents the evidence from research and evaluation studies. The report is divided into three main sections. Section 1 provides a synthesis of the information from the review. This section offers a definition of study support and presents an analysis of its perceived benefits for the young people and others involved. Several different types of study support are identified and examined in turn. This is followed by a discussion of the main points to arise from the review, an identification of common features of good practice and a summary of future priorities for provision and research in this field.

Sections 2 and 3 comprise annotated bibliographies of the literature, dealing with descriptive reports and research studies respectively. The two sections begin with a table presenting brief details of the relevant literature, and this is followed by individual summaries of each piece of work. A full listing of all of the references cited in the text is included at the end of the report.

Definition of study support

The area of study support is very diverse. In order to help focus the review, we adopted the following working definition of the area, based on that contained in the recent DFEE report on the subject (GB. DFEE, 1998a).

Study support is aimed at children of school age, and encompasses activities taking place outside of normal school hours (i.e. before and after school, at breaktimes, weekends and in the school holidays). Study support schemes are linked to schools, the activities are open to a group of pupils, and attendance is voluntary. In order to qualify as study support, the purpose of the activities should be to assist pupils' learning, raise achievement, and/or to promote positive personal and social change (e.g. attitudes to learning, motivation, self-esteem, teamwork). Some of the main types of activity included under this definition are listed below.

- After-school clubs and societies.
- Sporting and arts activities.
- Homework clubs.
- Revision centres.
- Summer literacy and numeracy schools.
- Summer 'universities'.
- Mentoring schemes.
- Courses based at residential centres.
- Outward bound courses.

Children's private 'leisure' pursuits (e.g. attendance at private or voluntary sports clubs, arts tuition, youth organisations and supplementary schools) are not included within the definition, although there is some degree of overlap between study support and private leisure activities within the literature.

Research methods

The project had three strands: a review of descriptive reports and opinion pieces; a review of the research literature; and an ‘expert review’, consisting of interviews with key people involved in study support provision and research. (A full explanation of the methods is provided in the Appendix.)

The database searches were confined to publications from 1988 (the date of the Education Reform Act) to 1997 (the year in which the review began). Although the search included material from other English-speaking countries, priority was given to material originating in the UK (particularly England and Wales). It must be acknowledged that it was not easy to identify relevant material for inclusion in the review. This was mainly due to the fact that this is an evolving area, and it is therefore difficult to identify relevant material from the existing databases. In order to address this problem, we supplemented the database searches with information from other sources.

This report is based on a review of 62 descriptive reports and research studies, and on a series of interviews with ten experts in the field of study support. Most of the literature originated in the UK, although there was a small amount from the USA. The research studies ranged from small-scale evaluations of specific initiatives to large-scale quantitative studies and meta-analyses (i.e. statistical studies drawing together the findings from a number of separate research studies within a particular field). The majority of the research studies (24 out of 28) concerned or included secondary-age students; nine included primary-age pupils; two reported on summer literacy schools designed for pupils at the time of transfer between primary and secondary school; and two included special schools/pupils with special educational needs. Similarly, the majority of the project descriptions relate to study support in secondary schools. For this reason, the findings and recommendations arising from the review may have more limited application to primary and special schools than to secondary schools.

What are thought to be the benefits of study support to young people?

This section draws on the information provided by our ten expert interviewees to identify the main benefits of study support for the young people involved.

The experts we interviewed identified a range of benefits to young people from taking part in study support activities. For example, all of our interviewees agreed that study support benefits young people by helping them to develop existing **skills** and to acquire new ones. They felt that one of the main contributions of study support was in the area of developing young people’s personal and interpersonal skills such as autonomy, cooperation, communication and teamwork. Some of our interviewees drew attention to the value of these skills because they are both transferable and vocationally relevant.

Several interviewees mentioned the **personal rewards** gained by pupils engaging in enjoyable activities outside school hours, and the potential of this kind of provision to bring about improvements to pupil **self-esteem and motivation** to learn. This was

linked to the provision of opportunities for young people to pursue new interests, to experience a range of approaches to learning and to enjoy a feeling of success.

It was recognised that the benefits of study support depended on the specific nature of the provision. For example, through providing help with **study skills**, young people could learn a repertoire of strategies, such as problem-solving, research, effective note-taking and the use of information and communication technology (ICT). Other types of provision enabled pupils to develop their particular **interests** and skills in areas such as arts, sports or foreign languages. It was recognised that while certain schemes contributed directly to improvements in pupils' **academic achievement** and progress at school, others had an indirect effect on achievement through bringing about improvements in young people's personal and social skills, behaviour, attitudes to school and motivation to learn.

A few interviewees focused on the ability of study support activities to **help pupils in particular need of support**. For example, help can be provided for pupils with reading problems through schemes offering intensive support outside of school time. For pupils from disadvantaged or difficult home circumstances, study support was considered to provide opportunities for young people to study in a safe environment, and to give them access to resources and support not available in the home.

What are thought to be the benefits to others, such as teachers and parents?

In their answers to this question, our interviewees highlighted benefits to teachers, parents, the school and the local community.

There was strong agreement about the benefits of study support for participating *teachers*. Teachers were felt to benefit from opportunities to pursue a wide range of **interests**. Several interviewees mentioned the degree of **enthusiasm** generated among teachers involved in providing study support. Through taking part in these activities, teachers are able to adopt **different roles** in children's learning (e.g. that of facilitator or mentor). It was argued that participation in study support enables teachers to develop **better relationships with pupils**. By taking on different roles and by encouraging pupils to adopt a range of learning strategies, teachers have opportunities for **personal and professional development**. (Several interviewees referred to teachers trying new approaches with a small group of pupils outside of school hours, which they were later able to use in the classroom.)

Our experts identified a number of benefits to *parents* from study support. These included: better communication and **improved relationships with the school**; opportunities to **become involved** in helping their children's learning; and opportunities for learning themselves (e.g. through family literacy schemes). Parents were considered to benefit from the reassurance that their children were being given **additional opportunities** and support for learning in a safe and secure environment.

A minority of interviewees identified benefits of study support for schools and the local community. As far as schools were concerned, the benefits mentioned were: **whole-school improvements** (e.g. in attendance, motivation and examination

results); **improved liaison** between the school and the local community; and opportunities for promoting a **positive image** of the school to parents. Community benefits included: opportunities for economic and social **regeneration**; the ability to forge **links** between specific groups through targeted projects (such as projects bringing children into contact with elderly people) and possible benefits to the community from **improved behaviour** among young people (e.g. a reduction in vandalism and graffiti).

What is the evidence that study support benefits young people?

There is certainly a great deal of corroboration for the benefits identified by our 'experts' in the descriptive reports we reviewed (see for example, Andrews, 1995; Andrews *et al.*, 1996; Barber, 1996; Education Extra, 1997; GB. DFEE, 1996; Hand, 1995b; MacBeath, 1997b). This is perhaps not surprising, given the fact that several of these articles and books were written by our interviewees.

Evidence from research also highlights the benefits of study support to young people, although there are difficulties faced by researchers in proving that positive outcomes can be ascribed solely or mainly to the influence of study support. (The studies outlined below tended to focus on the benefits of study support to *pupils*.)

Our literature review included a number of large-scale research studies conducted in the USA in which researchers sought to establish the link between participation in 'extra-curricular activities' and pupil achievement. For example, two researchers (Camp, 1990; Marsh, 1988, 1992) used the same national database of high school students to investigate the relationship between taking part in a range of activities and progress at school. These researchers considered the proposition that involvement in extra-curricular activities is detrimental to academic achievement, because it distracts students from their schoolwork.

Both researchers used statistical techniques to take account of the influence of background factors, such as gender, socio-economic status, ethnicity and academic ability. They went on to examine the relationship between students' extra-curricular participation (e.g. in sports and arts clubs, student government, church and community service) and their progress at school. The results showed that student participation did not distract from academic achievement, except at very high levels of involvement. In fact extra-curricular involvement was found to be significantly related to a range of positive outcomes, such as academic self-concept, time spent on homework, good attendance, and academic achievement. Similar conclusions were reached in a separate study of US high school students (Bradford Brown and Steinberg, 1991).

In a study of after-school provision for pupils from deprived backgrounds, Posner and Vandell (1994) found that nine-year-olds who attended formal after-school programmes achieved significantly better grades and behaved better at school than pupils who experienced other types of after-school care.

As well as establishing a link between participation in extra-curricular activities and desirable outcomes, two of the studies went looked more closely at the nature of this relationship. Posner and Vandell (1994) found that the amount of time spent by disadvantaged children in academic or enrichment activities after school (whether at school or at home) was related to a range of positive outcomes, such as peer relations, emotional adjustment, and academic grades at school. On the other hand, time spent by children in 'unorganised outdoor activities' was negatively associated with academic grades, work and study skills and emotional adjustment. The authors suggest that taking part in organised activities was beneficial to these disadvantaged children and prevented them from becoming involved in anti-social behaviour with 'deviant peers'.

Marsh (1988, 1992) looked at the possible relationship between participation in extra-curricular activities, high school students' self-concept and their academic achievement. His work confirmed that there was a link between student participation in extra-curricular activities and two aspects of self-concept (academic and social self-concept). Marsh suggests that participation in extra-curricular activities has a positive effect on students' commitment to school and that this, in turn, has a positive effect on their academic achievement.

Although most of the research focused on specific initiatives (and is therefore dealt with in the discussion of different types of activity, below) there is evidence from two studies carried out in this country that pupils' use of leisure time is related to achievement. Smith *et al.* (1989) found that secondary pupils' participation in a number of specific extra-curricular activities at school (e.g. sports teams, school visits, concerts and contributing to assemblies) was positively related to their attainment and progress in mathematics and reading. This relationship held even when the influence of background factors, such as gender, social class and ethnicity, were taken into account.

Brooks *et al.* (1997) found a statistically significant relationship between the reading performance of eight-year-olds and their involvement a range of activities outside school (i.e. playing with friends, involvement in sports, playing computer games, doing jobs at home, reading and watching television or videos). It appeared that children who were involved in several activities to a moderate extent did better in reading than those who were involved in just one or two activities to the exclusion of all others. Not surprisingly, there was a significant relationship between leisure-time reading and reading performance: pupils who reported reading 'for fun' most days of the week had the highest reading attainment. (However, it should be pointed out that this analysis did not take the influence of background factors, such as socio-economic status and gender, into account.)

Curriculum enrichment and curriculum extension

Several of the articles and books dealing with study support draw a distinction between curriculum 'enrichment' and curriculum 'extension' (see for example Barber *et al.*, 1997; Education Extra, 1997, 1998; Posner and Vandell, 1994). Curriculum *extension* activities can be defined as those most directly related to academic study, such as homework clubs, revision schemes, study skills and other types of curriculum support (such as schemes aimed at improving children's literacy). Curriculum *enrichment* activities are less closely related to academic study. They include activities such as arts (e.g. choir, orchestra or drama club), sports, community service, cultural visits and outward bound courses. The intention of curriculum enrichment may be to broaden children's opportunities, develop personal and social skills, and to enhance self-esteem. There is also a strong emphasis on providing enjoyable experiences that will attract young people's interest and motivate them to spend their free time in organised activities. Although it is possible to distinguish between extension and enrichment activities, in practice many study support schemes incorporate aspects of both.

A few of the research studies considered the relative merits of curriculum extension and enrichment. Although there is some consistency in the conclusions of these studies, there is also disagreement among the researchers about the value of enrichment versus that of extension activities. For example, Bradford-Brown and Steinberg (1991) found that student participation in competitive sports and performing arts activities was negatively related to academic achievement, whereas involvement in social clubs or interest groups was positively related to achievement. Marsh (1988, 1992) reached similar conclusions about the positive benefits of participation in clubs, but differed from Bradford-Brown and Steinberg about the value of participation in sporting activities. In his study, Marsh found that student participation in extra-curricular sport was strongly related to positive social self-concept and to a number of other desirable outcomes. Participation in community organisations (e.g. student government, church organisations and community service groups) was also related to a range of positive outcomes.

Posner and Vandell (1994) found that time spent by children in organised academic activities after school was positively related to school conduct and relationships with their peers at school (although not with academic achievement). Contrary to the findings for performing arts activities outlined above (Bradford-Brown and Steinberg, 1991), Posner and Vandell found that time spent by nine-year-olds in organised enrichment activities (e.g. music and dance) was associated with a range of positive outcomes. These included good peer relations, emotional adjustment, and higher academic grades in language, science and social studies.

On the basis of a study conducted in England, Barber *et al.* (1997) suggest that student involvement in curriculum enrichment activities is more clearly related to school effectiveness than is true for curriculum extension. In this study, seven secondary schools singled out for praise by Her Majesty's Chief Inspector of schools were compared with seven similar, non-commended schools. According to the students, the commended schools offered fewer extension activities (e.g. homework clubs, opportunities for study in English, mathematics and IT) but more curriculum enrichment activities (e.g. sports, arts and clubs) than did the non-commended schools. Students in the commended schools were more likely to take part in

instrumental music, music and drama productions, sports and clubs/societies than were their counterparts in non-commended schools. The authors suggest that curriculum extension activities contribute to students' enjoyment and motivation, which in turn contribute to the academic performance of a school.

What are the benefits of curriculum enrichment?

Our review of the descriptive literature identified very few initiatives focusing specifically on curriculum enrichment, although a number of the initiatives included both enrichment and extension activities (see Cooper, 1991; Ghouri, 1997; Sewell, 1996; and the references cited in the section on summer schools, below). It seems likely that, because of their more informal nature and less direct relationship with achievement, curriculum enrichment is not as well documented and is less frequently evaluated than is true of extension work.

We were only able to find two descriptive reports focusing specifically on enrichment activities (Croall, 1995; GB. DNH, 1996). Croall (1995) describes a somewhat unusual initiative that provided assertiveness training and support for introverted primary-age children. The second report (GB. DNH, 1996) is a discussion paper published by the Department of National Heritage, which put the case for young people's access to a range of artistic and cultural opportunities at school, including extra-curricular activities. The paper suggests that extra-curricular arts activities could be facilitated through partnerships between schools and local arts groups, and that an 'Artsmark' scheme could be established to recognise schools offering extra-curricular arts activities amounting to four hours or more per week.

Research into curriculum enrichment

From our searches of the literature, we identified four research studies focusing specifically on enrichment activities. These were: a meta-analysis of research on outward bound courses (Hattie *et al.*, 1997); two surveys of provision for arts and sports activities in schools (O'Brien, 1996; Mason, 1995a, 1995b); and an evaluation of enrichment provision in one secondary school (Watts and Hillman, 1997).

In their meta-analysis of research into outward bound courses, Hattie *et al.* (1997) considered 96 research studies. It is important to note that most of the evaluations concerned outward bound courses taking place in the USA and Australia, and less than a quarter of them involved school-age pupils. The authors concluded that there was an immediate positive effect of the outward bound courses on the participants. Some of the evaluations included a follow-up assessment a few months after the end of the course. An analysis of these longer-term effects showed an additional positive effect of the programmes over time. The authors suggest that the combined effect size (the immediate plus the longer-term effects) of .51 was indicative of a very strong positive outcome. The greatest positive effects were found in the relation to social and personal development (including leadership, independence, emotional stability, assertiveness and flexibility).

The remaining three studies considered provision for arts and sporting activities in this country. In the first of these, O'Brien (1996) focused on secondary students' participation in arts activities. The survey revealed a relatively low level of student participation in extra-curricular arts activities at school, compared with their

participation in arts activities within school lessons and at home. The author suggests that there is evidence of an unmet demand for extra-curricular arts activities at school.

In two related studies commissioned by the Sports Council, Mason (1995a, 1995b) looked at the participation of English young people in sport. Almost all the primary and secondary pupils surveyed had participated in some extra-curricular sporting activity, but most sports involved only a small proportion of children on a regular basis. Boys and younger children were more likely to participate. Interviews with pupils and PE teachers revealed that children's participation in sporting activities outside school was strongly related to social class: children from less affluent backgrounds were much less likely to participate. Schools were considered to offer a potential solution to the problem, because children from all backgrounds would be able to access sporting activities taking place at school.

Watts and Hillman (1997) reported on an evaluation of study support in a Bristol secondary school. The school offers a wide range of extra-curricular opportunities, with a particular focus on sports, arts, and community service. The study found over a third of pupils took part in school-organised activities, and that sports and drama activities were the most popular with students. Interviews with students revealed that they perceived a number of benefits from taking part in extra-curricular activities, including gains in confidence, self-esteem, and a sense of achievement. An analysis of GCSE results provided evidence of a statistically significant relationship between students' willingness to participate in extra-curricular activities and the achievement of five A-C passes at GCSE (although the analysis did not take account of the influence of other factors, such as social class).

What are the benefits of curriculum extension?

The literature contained several descriptions of curriculum extension projects (GB. DFEE, 1998c; Hodges, 1996; Kingston, 1996; MacBeath, 1997a, 1997b; Young, 1996). These were wide-ranging, including a description of an initiative to establish homework clubs in public libraries (Hodges, 1996); an Easter revision course for high achieving students (Kingston, 1996); and an article describing the use of study support centres by truanting pupils (Young, 1996).

Several of the initiatives described in the literature are targeted on pupils from disadvantaged backgrounds who lack the facilities for study at home. This is a particular area of interest for *The Prince's Trust – Action*, which has developed an influential study support initiative for secondary children in socially deprived areas. However, from our interviews and reading it became clear that the Prince's Trust uses a broad definition of study support, and is keen to encourage the development of initiatives that go beyond 'mere' curriculum extension to tackle issues of self-esteem, motivation and alienation (e.g. through a range of opportunities, including provision for enrichment as well as extension-type activities).

Research into curriculum extension

Three evaluations of curriculum extension projects are included in this review (MacBeath, 1993; Pocklington, 1996 and Tower Hamlets Study Support Project, 1997). There is also a study of the association between extra-curricular science activities and willingness of secondary students to opt for careers in science and

engineering (Woolnough 1991, 1994). All four studies reached positive conclusions about the benefits of curriculum extension opportunities.

MacBeath (1993) carried out a two-year evaluation of a study support initiative in deprived areas of Strathclyde. The initiative aimed to improve self-esteem and to foster positive relations between students and teachers through providing facilities for homework and supported study outside school hours. The evaluation used a qualitative approach, visiting 12 secondary schools on a number of occasions over a two-year period. There were very positive reactions to the initiative from all concerned. Students felt study support had given them more confidence in school, had helped them to achieve better homework grades and had improved their relationships with teachers. Teachers agreed that the scheme had improved their relationships with students and said they had gained a better understanding of students' needs and expectations. Teachers also valued the opportunity to act as facilitators for learning in a variety of subject areas. Parents felt that the scheme had helped their children to become more responsible, and said it had aided their ability to communicate with their children about school work. Heads were committed to the scheme and wanted it to continue.

Pocklington (1996) evaluated a two-year school improvement project, involving eight secondary schools in Hammersmith and Fulham. The schools developed a range of study support activities, such as flexible learning centres, revision classes, coursework clinics and homework centres. Although the main focus was on curriculum extension, the schools also offered some enrichment activities (e.g. visual arts).

Teachers said that the students who took part in study support showed improved motivation, self-esteem and behaviour. Interestingly, there was evidence that the scheme had changed the attitudes of participating teachers, who became more motivated and more willing to consider further school improvement initiatives. An analysis of the GCSE results obtained by Year 11 students showed that those who had attended the Easter revision centres achieved higher grades than students who did not attend.

An evaluation of a study support initiative in Tower Hamlets (Tower Hamlets Study Support Project, 1997) produced similarly positive findings. Schools that participated in the initiative experienced larger gains in GCSE results over a three-year period than did non-participating schools (although it is not clear whether the two groups of schools were equivalent). At the student level, a positive association was found between GCSE performance (relative to teachers' predictions) and attendance at Easter revision classes.

In an investigation into the influences on secondary students' choice of science-related studies, Woolnough (1991, 1994) suggested that the provision of certain extra-curricular science activities was a positive factor. Woolnough found that secondary schools and colleges offering additional science-related opportunities for students (e.g. visits from scientists and engineers, visits to scientific employers, work placements and involvement in science competitions) had higher proportions of sixth-formers opting to study science or engineering courses in HE. Students studying

science (especially those interested in engineering) indicated that these extra-curricular science activities were a positive influence towards the subject.

Summer schools and universities

The descriptive literature contains several accounts of projects operating during the summer holidays. In particular, there are a number of accounts of summer universities (Birmingham Education Authority, 1997; Hammersmith and Fulham Education Authority, 1997; Haringey Education Authority, 1996; Pitt, 1997; Tower Hamlets Education Authority, 1997). The majority of the summer universities involved a partnership between a local authority, schools, local businesses and charitable trusts. Although they are called ‘universities’, most of them took place on school premises and were aimed at secondary-age pupils.

The schemes appear to have diverse aims and target groups, but they are characterised by common intentions of improving pupils’ self-esteem and raising achievement. Each had a particular focus, for example: on combating disaffection (Birmingham Education Authority, 1997); reducing involvement in juvenile crime (Haringey Education Authority, 1996); helping young people who have English as an additional language (Tower Hamlets Education Authority, 1997); increasing vocational opportunities (Hammersmith and Fulham Education Authority, 1997) and developing young people’s longer-term commitment to learning (Birmingham Education Authority, 1997; Pitt, 1997).

The schemes offered a combination of curriculum extension, curriculum enrichment and vocational opportunities. The organisers recognised the need to attract young people to take part, through offering a range of interesting and relevant activities; as well as the need to reward young people for their involvement, through providing certificates and holding celebratory events. The authors of the project descriptions considered the summer universities to have been successful in attracting young people (several were heavily over-subscribed) and in engaging their interest.

Although some of the descriptive accounts referred to information from internal evaluations, we were unable to obtain any reports of such evaluation studies to contribute to our review of research findings. This may be due to the fact that summer universities are a relatively new initiative.

Research into summer schools

There were four research studies relating to summer schools, two of which evaluated the pilot year of the summer literacy schools initiative (Andrews, 1997; Sainsbury *et al.*, 1997, 1998). One of the other studies (McFayden and Hughes, 1996) provided a largely positive evaluation of a summer school set up by parents of children with severe learning difficulties. The final report considered in this section is a meta-analysis of studies conducted in the USA, which considered the extent of academic ‘loss’ experienced by children during the summer holiday period (Cooper *et al.*, 1996).

The summer literacy scheme was established in 1997 to improve the literacy skills of pupils in Year 6 (11-year-olds) who had not met the national standard in reading. Fifty centres were established throughout in English secondary schools. Both of the

evaluations drew attention to the positive effects of the literacy schools on pupils' attitudes to reading and confidence in their ability to cope with the transfer to secondary school. However, the two reports reached somewhat different conclusions about the pupils' academic gains.

The first evaluation (Andrews, 1997) was largely qualitative, but included some evidence on children's progress submitted by 19 of the centres. The results indicated that children had made progress in reading and spelling over the course of the scheme. The second evaluation, (Sainsbury *et al.*, 1997, 1998) used quantitative methods to assess children's progress in English between the Key Stage 2 assessments in May and a re-test in September. Comparisons were made between children who had attended 43 of the centres, and a similar group of children who did not attend (although it should be noted that the researchers had difficulty in obtaining a comparable group of children to act as controls). Contrary to expectations, the research found a general decline in scores from pre- to post-test, and the group who attended the summer schools did not make better progress than children who had not attended, although there was evidence that the attitudes of pupils attending the centres had improved.

One explanation put forward by the researchers for the apparently contradictory assessment results obtained in the two studies is that attendance at the summer schools temporarily boosted the children's English attainment, but that this was undermined by a subsequent loss in attainment over the rest of the summer holiday period.

The existence of 'summer loss' was highlighted in a meta-analysis of 13 studies conducted in the USA (Cooper *et al.*, 1996). The researchers concluded that the long summer break has a detrimental effect on pupil progress (amounting to at least a month in grade-level terms). Losses were greater for areas of factual and procedural learning (e.g. mathematics and spelling) than for conceptual understanding (e.g. reading). However, the effect of the summer break on reading differed according to socio-economic status: the reading scores of children from working-class backgrounds tended to deteriorate over the summer break, whereas those of middle class children improved. The authors suggest that this may result from children's differential access to reading and language learning opportunities during the summer break.

Mentoring schemes

The descriptive literature contained several reports of mentoring schemes, in which adults who are not teachers offer advice and support to young people, both within and outside of normal school time (Business in the Community, 1996; Klein, 1995, 1996; McGavin, 1995; Spencer, 1997; Times Educ. Suppl., 1996; White, 1998). The majority of the schemes were targeted at older secondary pupils. The benefits of the

schemes were said to include: improvements in student self-confidence, interpersonal skills, motivation to learn and academic achievement.

While some of the schemes were targeted at all eligible pupils within a school or group of schools (Business in the Community, 1996; White, 1998) others had a particular emphasis on excluded pupils and/or those from particular ethnic backgrounds. Two such projects were prompted by a disproportionate rise in school exclusions among boys from Afro-Caribbean families (Klein, 1995, 1996; McGavin, 1995; Times Educ. Suppl., 1996). The programmes recruited adults (in one case these were exclusively black males) to act as role models for the boys, to praise their achievements and to work on areas of difficulty. In another project (Spencer, 1997), Asian girls from disadvantaged backgrounds were mentored by professional women from Asian backgrounds, who provided careers advice and worked on improving the girls' self-esteem and motivation to learn.

Although most of the accounts did not include anything other than anecdotal evidence of success, one mentoring and study support scheme based in Dalston, was said to have a 60 per cent success rate in helping excluded pupils to take up places in education, training or employment (White, 1998).

Research into mentoring schemes

We identified four research studies of mentoring schemes (Golden and Sims, 1997; Miller, 1998; National Mentoring Network, 1996; Tierney *et al.*, 1995). These noted perceived benefits of mentoring for students, similar to those outline above. For example, mentored students reported gains in their organisation, punctuality, motivation and confidence as a result of the advice from their mentors. The research also highlighted the benefits of such schemes for the mentors. These included learning more about the educational system, gaining an understanding of young people and an enhancement of the mentor's interpersonal skills.

Two of the research studies (Golden and Sims, 1997; National Mentoring Network, 1996) provided information from surveys of industrial and business mentoring schemes in this country. They found that the schemes were targeted primarily at students in Years 10 and 11 who were identified by their teachers as underachieving, lacking in self-confidence, but with a potential to succeed. Golden and Sims (1997) asked mentoring coordinators about the results of their own evaluation studies. It emerged that, although coordinators were convinced of the value of mentoring, they found it difficult to ascribe positive changes in mentored students solely to the effects of the mentoring scheme. The coordinators commented that some of the effects on mentored students were intangible and therefore difficult to assess.

The other two studies (Miller, 1998; Tierney *et al.*, 1995) attempted to establish the effects of mentoring on students' academic progress and other outcomes. Miller (1998) studied mentoring schemes operating in seven English secondary schools. The findings indicated that students who participated in mentoring schemes performed slightly better at GCSE (relative to their predicted scores) than did a similar group of students who had not participated in the mentoring schemes.

The report by Tierney *et al.*, (1995) describes the results of a large-scale mentoring scheme in the USA. The initiative, *Big Brothers/Big Sisters*, targets young people aged from 10 to 16 years, most of whom are from low income families. This is the only research study included in this review to adopt a true experimental design, with random allocation of volunteers to either a treatment (mentored) or control (not mentored) condition. The study found a small, but statistically significant difference in academic achievement favouring the mentored students. There were also statistically significant differences in behaviour and attitudes favouring the mentored students. For example, in comparison to control-group students, the mentored students reported attending school more frequently and feeling more competent about doing school work. Mentored students also indicated that they were less likely to initiate drug and alcohol use, and reported better relationships with their parents than did the controls. The use of an experimental design strengthens the results of this study, because they are unlikely to be an ‘artefact’ of the student selection process.

Discussion and conclusions

This part of the report brings together the findings from the three strands of the review (expert review, descriptive and research literature) to address four main questions.

- What can be said about the benefits of study support?
- What are the messages for good practice?
- What should be the main priorities for the development of study support?
- What further research is needed to increase our understanding of the effects of study support?

What has this review revealed about the benefits of study support?

The review has found a consistently positive picture of study support. Study support is considered to offer a range of benefits to young people in relation to social, personal and academic development. The research evidence tends to confirm that study support is achieving its aims. The initiatives described in the literature appeared to be popular with young people who testified to its positive effects, as did their teachers and others involved. However, it must be said that most of the research evidence for the effects of study support is suggestive, rather than conclusive. There are positive associations between participation in study support and achievement, but it is not clear to what extent these can be ascribed to the influence of the programmes themselves.

It is possible to state that the research evidence has established a link between young people’s participation in a range of activities outside of school hours and a number of desirable outcomes, including improved attitudes to school, attendance and academic achievement. But, as many commentators have argued, access to organised activities is often dependent on the social and financial resources of a child’s family. This supposition is confirmed by research evidence that children from poorer families are less likely to take part in organised activities outside of school (Camp, 1990; Hendry *et al.*, 1989; Marsh, 1988, 1992; Mason, 1995a, 1995b; Smith *et al.*, 1989), as are

those from particular ethnic or religious groups (Smith *et al.*, 1989). There is also evidence that children from disadvantaged backgrounds experience a drop in reading attainment over the summer holidays, whereas the reading attainment of children from middle-class backgrounds improves (Cooper *et al.*, 1996). Children from disadvantaged backgrounds may spend time out of school in unsupervised activity, which puts them at risk of becoming involved in deviancy (Posner and Vandell, 1994).

In order to counteract these sources of educational disadvantage, many study support programmes are based in areas of social deprivation. They aim to help combat a number of factors related to disadvantage, including lack of access to educational opportunity, under-achievement, low self-esteem, disaffection, and exclusion from school. This review includes several examples of study support initiatives that appear to have made a difference to these children's lives (Barber, 1996; Hand, 1995a, 1995b; Macbeath, 1993, 1997b; Posner and Vandell, 1994; Sewell, 1996; Spencer, 1997; Times Educational Supplement, 1996; Tower Hamlets Study Support Project, 1997; Young, 1996).

What are the messages for good practice?

Several of the descriptions, practical guides and research reports included recommendations for good practice, which are noted in the 'implications' section of the reviews - see Sections 2 and 3. We also asked our expert interviewees to identify the features of successful study support projects. There was considerable agreement about the elements of good practice, and these are summarised below.

Project initiation

- Identify a target group of young people and ensure that there is a clear understanding of their study support needs (e.g. through surveying the opinion of key groups).
- Choose an appropriate type of intervention, considering the balance between curriculum enrichment and extension.
- Consider the timing and duration of the scheme (when would be the best time to offer activities?).
- Network with other potential partners, such as parents, schools, colleges, community and business organisations, librarians and youth workers.
- Ensure that funding is adequate, and plan for the longer-term viability of the initiative.
- Plan to address practical issues such as access to buildings and resources, insurance, safety and child protection.
- Ensure that study support is embedded into the whole-school planning process.
- Appoint a coordinator to take responsibility for organising the scheme.

Project planning

- Agree a clear statement of aims and objectives, making explicit the intended outcomes for young people and others involved.
- Set targets/success criteria for the scheme to achieve.
- Ensure that everyone is informed about the aims of the initiative.
- Consider how young people will be informed and encouraged to take part. Offer them rewards for participation and achievement (such as access to enjoyable

activities, contact with role-models, recognition of participation in their records of achievement, awards ceremonies).

- Recruit suitable staff (e.g. in terms of skills, knowledge and attitudes). Provide training and on-going support for staff and volunteers (e.g. mentors). Consider how staff will be rewarded for their involvement.

Monitoring and evaluation

- Monitor progress in relation to the project's targets.
- Keep accurate records of attendance and retention. Consider whether there are any groups of young people who are not choosing to attend and find out why this is the case.
- Keep channels of communication open (e.g. between staff, parents and other partners). Be flexible enough to adapt to changing needs.
- Evaluate the perceived benefits of the initiative (gather information from young people themselves, as well as from other 'key players').
- Use evaluation findings as a basis for review and future development.

What are the priorities for future development of study support?

We asked our expert interviewees to identify their priorities for the expansion of study support opportunities, bearing in mind the current gaps in provision and perceived barriers to development.

Insufficient funding was considered to be the major constraint on development at present. As one interviewee said: 'Schools need money for running activities. If you go into schools these days you notice how impoverished they are: they simply do not have any spare money for out of school activities.' This was also thought to be true of other 'partners' involved in providing out of school learning, such as the youth and library services. Another concern was the existing pressures on teachers and the competing demands upon their time. Interviewees questioned the extent to which provision of out of school activities should depend on the additional work of already over-burdened teachers.

The current low status of study support was identified as a further barrier to development. This was linked to the lack of a clear identity for this kind of provision, its position as a non-statutory requirement, and the lack of training and accreditation available to staff providing study support.

Barriers to development mentioned by fewer of the interviewees concerned practical and organisational issues. These included: a lack of transport in rural areas; parents' concerns about the safety of young people (e.g. while travelling home from provision in the evenings); and the possible organisational barriers between 'partners' (e.g. between schools and library or youth services).

In terms of specific initiatives, there was felt to be insufficient provision at present for supporting basic literacy, numeracy and ICT skills. Interviewees felt that certain groups of young people were not currently well-served, including those from ethnic minorities and children with special educational needs. There was also mention of

patchy provision in rural areas, and insufficient centres offering residential accommodation.

The Government's proposed expansion of study support was welcomed, but interviewees were concerned that new schemes should be informed by a broad understanding of how best to address the needs and interests of young people, rather than by a school's desire to improve its position in the academic 'performance tables'. Interviewees supported the idea of diversity within study support. It was felt that projects should be set up to meet the needs of the young people themselves, and should be responsive to local circumstances. Interviewees stressed that national development should not be too prescriptive: schools should retain ownership of their initiatives and should be free to manage development in relation to their particular circumstances. However, some interviewees were concerned that young people in particular need of this type of provision should not be overlooked. For example, it was pointed out that certain groups (such as children from refugee families or those from deprived backgrounds) could miss out, because teachers may be unwilling to apply for any new initiatives due to the existing pressures on their schools.

Although the prospect of Lottery funding was welcomed, it was felt that it may not be sufficient to meet the need for expansion. There were also fears that, if funding were to be confined to supporting new initiatives, this may lead to many projects being set up which would subsequently fail, due to a lack of continuity in their funding.

A number of positive suggestions were made to help develop high quality initiatives. For example, quality assurance procedures should be developed in partnership with practitioners and built into the system of application, funding and monitoring of projects supported by the national scheme. It was felt that the further development of good practice and communication among project coordinators could be supported by a number of measures. These included: producing guidelines for those involved in running out of school activities; supporting and developing networks to share information; documenting good practice; instigating a new qualification/award scheme for staff involved in providing study support; and by researching the principles underlying good practice.

Several of our interviewees thought that study support could become embedded in the school system in future, being seen as a natural extension of a school's role. However, there was also recognition of the important contribution of others, such as youth and community workers, library staff, voluntary organisations and employers. It was felt that all these 'partners' should be included in the future development of study support.

What further research is needed?

This section focuses on the need for further research. We comment on the quality of existing research and identify the difficulties faced by researchers in proving that positive outcomes are caused by study support. We note the current gaps in research and go on to suggest alternative approaches for improving our understanding of study support through further research.

Research quality

On the whole, the research we examined for this review was of acceptable or good quality. However, there were examples of poorly conceived and conducted studies, and of reports that presented insufficient information. For example, some reports lacked key information concerning the size, composition and selection of samples; response rates; the methods used, the analysis and/or the findings of the research. (These and other weaknesses are noted in the ‘reviewer’s comments’ sections of each structured review - see Section 3.)

One common problem facing researchers is the difficulty of distinguishing between ‘selection effects’ and the impact of the study support initiatives themselves. In some cases, correlations between participation in study support and positive outcomes have been interpreted as evidence that study support has caused the desired effects. Yet because study support activities are usually voluntary, it is possible that they attract disproportionate numbers of pupils who are more likely to succeed because they are from advantaged backgrounds, are more academically able, or because they are already better motivated to learn. It is also possible that schools offering study support are more successful than others (in other words, study support may be just one element of a more successful or more innovative school). For these reasons, positive correlations between study support and academic performance could be due, at least in part, to the characteristics of the schools or of the pupils who have chosen to attend, rather than to the effects of the programmes themselves.

Most studies did not adopt an experimental design, and many lacked the pre-test data that would enable the initial equivalence of attendees and non-attendees to be assessed. This is not to under-estimate the practical difficulties of designing evaluation studies in this area: experimental designs, with random allocation to treatment and control conditions are probably unsuitable for the majority of study support projects, although they may have a limited application, as described below.

Gaps in current research

Although the studies we identified focused on a wide range of study support activities, we have found relatively little UK research on:

- arts activities;
- sports activities;
- outward bound courses;
- summer universities.

There is a need for more research into study support projects designed to help specific target groups, including:

- study support projects designed to help children develop basic skills;
- initiatives targeted at young people with special educational needs (including gifted pupils);
- initiatives targeted at disaffected young people;
- initiatives targeted at young people from ethnic minorities;
- schemes in rural areas.

There is also a need for more research on issues related to study support, such as:

- the extent of ‘summer loss’;

- evaluations of initiatives to restructure the school day or to provide year-round schooling.

What kind of research design should be used?

As noted above, the ‘best’ design for enabling researchers to attribute cause and effect is the true experimental design, where participants are randomly allocated to one of two conditions: treatment (e.g. study support) and control (no intervention). There is also a possibility of designing an experimental study whereby two or more treatments are compared.

We identified one research study that used an experimental design to evaluate the outcomes of a mentoring programme (Tierney *et al.*, 1995). The researchers asked for volunteers to take part in a mentoring scheme and randomly allocated them to a treatment group (who were immediately entered into the mentoring programme) or to a control group, who received mentoring at a later stage. This would seem to be a suitable model for the evaluation of study support initiatives where provision is in short supply (so that not all young people who volunteer will be able to be accommodated at once). It would also require considerable cooperation between researchers and programme organisers, so that the evaluation could be set up in advance.

Where it is not possible to use a true experimental design, it may be possible to establish matched groups of pupils to act as a control. This approach was used by Sainsbury *et al.* (1997) in their evaluation of the pilot Summer Literacy Schools initiative, although they experienced some difficulty in establishing a comparison group that was similar to the treatment group in terms of initial attainment. Others have attempted to address the problem by setting up longitudinal designs incorporating pre-tests of attainment and attitudes (e.g. Myers and MacBeath, 1998) or by attempting to establish the equivalence of the groups by using existing attainment data (Pocklington, 1996; Tower Hamlets Study Support Project, 1997; Watts and Hillman, 1997). Some of these studies considered the performance of students (at GCSE) relative to predictions made by their teachers or on the basis of predictive tests (Miller, 1998; Myers and MacBeath, 1998; Tower Hamlets Study Support Project, 1997).

Most of the studies have used measures that are readily available (i.e. test and examination results). We have found fewer studies using process or outcome indicators of:

- attendance (at the activities, at school);
- self-concept;
- pupil attitudes and motivation (e.g. attitudes to school, career aspirations, motivation to study);
- behaviour (e.g. offending behaviour, time spent on academic study, ability to demonstrate newly-acquired skills).

On the basis of this review, we would suggest the following priorities for further research.

- Where possible, evaluations should adopt a true experimental design, with random allocation to treatment and control groups. The control group could be offered participation at a later date.
- For the majority of cases where an experimental design is not possible, researchers should attempt to establish a comparison group of students with similar characteristics to those taking part in study support. This could include matching students on background characteristics (e.g. age, gender, socio-economic status, ethnicity) and on other key variables, such as prior attainment, examination predictions and attitudes.
- Evaluation studies could compare the progress of pupils who have chosen to take part in study support with two other groups: those in the same schools who have chosen not to take part; and those with similar characteristics attending similar schools which do not offer study support. Using this dual comparison design has the potential advantage of being able to consider the influence of selection effects and school effects.
- Studies could usefully combine quantitative and qualitative methods to establish the process by which study support affects the lives of young people. This would enable the evaluators to gain insights into the mechanisms by which study support affects achievement, and the role of study support in affecting pupils' attitudes.
- Further qualitative research is needed to illuminate young people's experiences of study support, to find out more about the factors which attract and deter young people from taking up these opportunities and to identify examples of good practice.
- Researchers should collect evidence on the impact of study support on aspects other than academic achievement, given that many of the initiatives have the expressed aim of improving pupils' self-esteem, attitudes, motivation and/or behaviour.
- Longitudinal studies could be employed to study the longer-term relationship between participation in study support, attitudinal change and pupil achievement.
- It would be useful to have more information about the experiences of others involved in or affected by the provision of study support, such as parents, teachers, coordinators and mentors.

Section 2

Bibliography of Descriptive Reports and Practical Guides

This section includes brief details and structured reviews of 34 descriptive reports and practical guides relating to study support. (Please note that there are more than 34 references because some initiatives were described in more than one publication).

Table 2.1 lists all 34 entries in alphabetical order of author. Each report is categorised according to the type of study support activity described (e.g. curriculum extension or enrichment; breakfast club; summer school; mentoring programme). Those categorised as 'practical guides' offer advice and guidance to schools on how to set up, monitor and evaluate their study support initiatives.

The table is followed by individual reviews of each report which provide information about: the aims of the article and/or of the initiative; the target population; a description of the content of the article; and its implications (i.e. the author's conclusions and recommendations for further development).

Key to types of activity listed in Table 2.1

brk - breakfast club	out - outward bound
enr - enrichment (e.g. sports and arts)	res - residential
ext - curriculum extension	rsd - restructuring the school day/year
gui - practical guide	stu - study support (general)
lei - leisure activities	sum - summer school/university
men - mentoring	

Table 2.1 Summary of descriptive reports and practice

Reference	Type	Description
Andrews, 1995	stu	This article describes the work of the charity <i>Education Extra</i> in public support. Pupils from all age-groups are targeted, especially those in dis aims to improve pupils' self-esteem and attainment.
Andrews <i>et al.</i> , 1996	gui	This book is an account of study support provision in this country. The parents on a voluntary basis. The authors suggest that children who atte academically. The final sections provide some examples of good practice
Appleyard, 1994	brk	This article describes the establishment of a breakfast club in an inner c Trent. The intention was to improve pupils' concentration levels by pro school. It is suggested that the breakfast club has led to improved motiv attendance. Pupils' socialisation skills have improved. The club benefi
Barber, 1996	stu	In this book, the author argues for the need to change the British educat under-achievement. The author refers to the benefits of study support, c and disaffected. It is suggested that a national network of study centres would offer homework clubs, residential opportunities and cultural visi access to information technology and could be staffed by a combination (including university students). Pupils' achievement at study support c accredited.
Birmingham Education Authority, 1997	stu, sum	This article describes the 'University of the First Age' which was estab 11-to 14-year-olds in Birmingham. The scheme aimed to combat disaff improve educational achievement. It was based at a local university an teaching based on the theory of multiple intelligences. Three hundred c part in the first year.

Business in the Community, 1996	men	This brochure describes <i>Roots and Wings</i> , a national mentoring program (for ten-year-olds to adults). The mentors are drawn from professional backgrounds and spend four hours a month with their mentees. The authors suggest that mentoring can help academically. The scheme has developed a 'Quality Framework' for the mentoring schemes.
Cooper, 1991	out, res	Field study and outdoor centres are described in this article. The authors suggest that provision can contribute to the development of young people's social skills, self-esteem, co-operation, tolerance, leadership and decision-making. It is suggested that such provision could be developed to encompass environmental awareness.
Croall, 1995	enr	<i>Tiger Clubs</i> are an initiative catering for introverted children of primary school age. The article describes how this after-school scheme encourages children to become more confident by providing them with individual attention and practical activities. Students are encouraged to join clubs.
Education Extra, 1997	gui	This practical guide draws on 50 examples of good practice in after school provision established through the government-funded Out of School Childcare Initiative. The schemes must help parents to contribute to the local economy, the clubs must be safe and meet statutory requirements for childcare. The provision is designed to encourage schools to offer free, school-based provision to pupils. The authors cite a number of benefits including study skills, confidence, social skills and improved examination results.
Ghouri, 1997	res	In North Tyneside, a pilot residential course was held during the half term holidays. There were 30 poorly motivated ten-year-olds from a number of primary schools. The aim was to raise pupils' academic standards and basic literacy skills. Curriculum was designed to enthuse the pupils. Teachers felt the course had contributed to their own professional development.

GB. DFEE, 1996	Stu	This report outlines the role of TECs in the national out-of-school child directed at parents, carers and educators of school-age children. The opportunity to participate in the labour market. The provision is aimed intention is to raise pupil attainment and motivation. The initiative seek school and holiday provision to community development and economic
GB. DFEE, 1998c	Stu	This press release describes the <i>Playing for Success</i> initiative, which w for primary and secondary pupils in Premiership football clubs. The aim the literacy, numeracy and IT skills of children. The centres are open s period. They are run by qualified supervisors, supported by local unive It is hoped that poorly motivated children will be attracted to centres be clubs.
GB. DFEE, 1998d; GB. DFEE, 1998e	Gui	These reports concern school teachers' pay and conditions. They confi any additional work required to provide study support activities, and se before payment is made. The guidance came into effect on 1 September
GB. DNH, 1996	Enr	This document outlines plans for a national <i>Artsmark</i> scheme, which ai schools and local art groups. The scheme would encourage primary and of-hours provision in the arts. In order to gain the <i>Artsmark</i> , schools sh hours provision per week out of school hours.

Griggs and Griggs, 1993	Rsd	This article describes how the school day of an East Sussex secondary school was extended. The new school day begins at 8.50 and ends at 2.35. The aim was to enhance the school day, to facilitate after-school activities and provide extra time for teachers. The result was that it meant that pupils could take part in after-school activities, spend more time at school and go home in the daylight.
Hammersmith & Fulham Education Authority, 1997	Sum	The summer school described in this report provided activities for 14- to 16-year-olds at a school in West London. The aim of the initiative was to encourage students to stay in school and to raise levels of achievement. The scheme aimed to increase students' awareness of vocational opportunities through a partnership between a school, a local business and a local authority.
Hand, 1995a	stu, sum	This project aimed to address the rise in school exclusions among African Caribbean pupils by providing additional support. The scheme was run by youth officers and teachers at two secondary schools. Sessions took place in a youth centre in Hammersmith and Fulham. The project targeted black pupils aged between 13 and 18 years. A summer school was established to provide support, to address drug abuse and to re-integrate them into the education system. The project involved a lot of communication with parents, who were involved in decisions relating to the project and further education.
Hand, 1995b	stu	This book describes two rural youth projects, one of which targeted secondary school pupils who considered themselves to be at risk of educational failure. The schemes were funded by the National Youth Agency in response to an increase in vandalism in the town. The projects were used as an organisational base for a range of activities, and individual counselling.

Haringey Education Authority, 1996	sum	This report describes the academic, sporting and practical activities offered during the summer 'university' in North London. A consortium of teachers, parents and volunteers organised the scheme with the intention of providing support and supervision for young people while occupying them during the summer break. Over 100 young people from diverse backgrounds took part in the first year.
Hodges, 1996	ext	This article describes a network of homework clubs set up in public libraries in Southwark. The scheme aimed to help 11-to-16-year-olds with schoolwork. The clubs were open after school and at weekends. Librarians offered specialist support.
Kids' Clubs Network, 1996	gui	<i>Kids' Clubs Network</i> produced this practical guide for providers of out of school clubs as part of the Out of School Child Care Initiative. It offers advice and guidance on the provision within a national quality assurance scheme.
Kingston, 1996	res, ext	The residential Easter revision courses described in this article were based in Cambridge and Birmingham. The courses aimed to help high-achieving pupils prepare for their GCSE and A-level examinations. Pupils aiming for careers in medicine and science are particularly attracted to the courses because they require A-level science.
Klein, 1995, 1996; McGavin, 1995	men	These articles describe a mentoring project set up in Birmingham to address the problem of school exclusions among 11-to-16-year-old African Caribbean boys. The scheme was designed to help those who sought to develop the boys' personal attributes such as: self-esteem, self-discipline and motivation to self-improvement. It was felt that the project had helped to focus the boys' energy on positive involvement in legitimate activities.

MacBeath, 1997a	stu, gui	This practical guide describes the <i>Princes' Trust</i> Code of Practice. It is support centres and contains information, guidelines and summaries of Practice sets out five objectives to help providers to achieve a high stan undergo internal and external assessment to ensure good practice is ach
MacBeath, 1997b	stu	The <i>Princes' Trust</i> Study Support project is discussed in this article. Th good practice and to encourage networking among secondary schools.
Mortimer, 1990	rsd	This article discusses the restructuring of the school day at one senior s subjects were taught before lunch. It is claimed that teaching and learn have more time available for extra-curricular activities and homework, administrative commitments.
Pitt, 1997	stu, out	This report describes the piloting of <i>Kent Children's University</i> , which learning. Over 1800 children aged between nine and 11 participated in hours on Saturday mornings at primary schools, secondary schools and activities were offered The authors suggest the range of activities allow learn from new experiences. Children were awarded certificates on suc

Sewell, 1996	stu,	This article describes how supplementary schools formed a consortium to improve academic achievement while preserving national, religious and linguistic practice. It focuses on school-age pupils from ethnic minorities attending Saturday schools in London, which are considered to offer an integrated and contemporary approach to supplementary education.
Spencer, 1997	men	This article discusses a mentoring scheme that aimed to boost the confidence and self-esteem of young women at one school in a deprived area of Sheffield. The girls received one-to-one mentoring from Asian backgrounds who were employed in professional occupations. The scheme provided additional support and were considered to be realistic role models. The scheme resulted in heightened levels of student motivation and commitment to academic achievement.
Times Educ. Suppl., 1996	men, stu	This article describes the <i>Dalston Youth Project</i> , an initiative set up in London to help reintegrate disaffected 15-to 19-year-olds. The majority of the students were male. A package of short courses was offered at the Community College, including English, building, literacy and drama. Mentoring was also part of the project: professional and suitable role models offered guidance and support to the disaffected students. The project was successful, with 60 per cent of participants taking up places in education or employment.
Tower Hamlets Education Authority, 1997	sum	This report describes a Summer University set up for 14-to 21-year-olds. The scheme intended to promote independent learning and raise attainment in English, maths, social skills and confidence. A programme was designed to embrace a range of activities including sports, arts, leisure and social activities.

Walton, 1995	gui, stu	In this article, the Deputy Director of Education Extra describes some of the schools wishing to provide activities after school. He outlines the benefits and suggests solutions to some of the common practical issues faced by schools.
White, 1998	men	This report describes a mentoring programme developed in Hackney for pupils who lacked self-esteem and self-confidence. Pupils were given the opportunity to discuss their concerns and career plans with trained mentors.
Young, 1996	enr	This article describes the use of <i>Prince's Trust</i> study support centres in secondary school pupils. The centres have attracted disaffected pupils, who attend formal lessons because of low self-esteem and under-achievement. The emphasis is upon 'learning not teaching'. Unfortunately, many pupils are becoming re-integrated into schools.

Reviews of descriptive reports and practical guides

ANDREWS, K. (1995). 'Added extra brings benefits to schools', *ACE Bulletin*, **67**, 6-7.

Aim

In this article Kay Andrews, director of the charitable organisation Education Extra, explains the need for study support and her organisation's role in supporting this area of work.

Education Extra aims to:

- promote the organisation of innovative study support activities;
- occupy and fulfil young people in a challenging way;
- explore and develop lifelong interests;
- develop home-school-community relations;
- make use of school facilities;
- promote school improvement.

Target Population

The organisation targets all types of schools in the United Kingdom, from primary to secondary, especially schools in socially disadvantaged areas.

Description

Education Extra was established in 1992. It now has over 600 members. Its main purpose is to recognise good practice. In order to acknowledge success, a ceremony is held to award certificates of distinction to schools.

The author states that research into parents' attitudes to secondary school has found that 90 per cent of parents wanted schools to offer more after-school activities. Education Extra offers a support network to schools which provides advice and information. Schools are able to share their experiences and suggestions through this network.

Education Extra holds a national database in order to keep track of schools' efforts to improve study support. The organisation has been involved in setting up exemplary projects in areas of high disadvantage. It is also involved in advising LEAs and Government on how best to develop after-school programmes.

Implications

According to the author, Education Extra's experience suggests that when pupils participate in study support activities they are likely to do better in school and that after-school programmes boost the ethos and effects of the school.

Study support offers the chance for socially disadvantaged children to experience and enjoy what other children may take for granted. Children have the chance to achieve in something other than school work. This can be of great importance to children who are not natural educational achievers. 'Children feel valued and of worth

possibly for the first time in their lives. A positive effect in the classroom often follows this increase in self-esteem' (Andrews, 1995, p.7).

Study support also allows people such as pensioners, volunteers and local employers who would not normally be involved with school activities to contribute their skill and enthusiasm to life-long learning. This not only enhances the child's development, but also builds up a sense of community.

ANDREWS, K., VERNON, G. and WALTON, M. (1996). *Good Policy and Practice for the After-School Hours*. London: Pitman.

Aim

This book provides an over-view of the area of after-school activities. It highlights the various ways in which after school provision can have a successful impact on child development, such as leadership, acquisition of skills, raising motivation and achievement and social integration.

Target population

The book is aimed at all those involved in developing after school provision, including local authorities, LEAs, headteachers and governors of primary and secondary schools.

Description

The book comprises an introduction and eight chapters. The first part of the book provides examples of after school activities, which are set against the current background of educational change. The book goes on to consider specific subject areas such as arts, sport, ICT and study skills. There is guidance on the practicalities of running a club, including issues such as time management, funding and resources. The concluding chapter outlines some of the priorities for future development

It is argued that after school provision is an essential resource in the personal and academic development of the pupil. After school provision can be seen as promoting successful learning. Such clubs and activities offer a place for safe play and these schemes can be of vital importance for working parents.

Implications

- After school activities are often voluntary, therefore they rely on the goodwill of parents, teachers and volunteers. The status of such schemes needs to be raised, perhaps with the introduction of accreditation.
- Long term planning is required, with a clear framework for policy and a budget to meet additional costs.
- Education Extra believes that priority should be given to a national programme to make after school activities available to every child.

APPLEYARD, D. (1994). 'Toast of the town' (TES2), *Times Educ. Suppl.*, **4092**, 2. December, 6.

Aim

This article describes one school's attempt to raise attainment by starting a Breakfast Club, one of the first in the country. It was prompted by research at Exeter University, which has shown that children's concentration is much greater if they have eaten a good meal.

Target Population

Abbey Hulton is an inner city primary school in Stoke-on-Trent. At the time of reporting, over 70 per cent of children were eligible for free school meals, and teachers realised that many children were not eating properly in the morning. Approximately 40 children chose to attend the club each morning.

Description

The club started as a healthy eating project, with staff and food provided by Staffordshire County Council catering service. Each morning at 8.30 a.m. the school provided children with a breakfast of cereal, toast, flapjacks, milk and fruit juice. The children paid 20 pence for a breakfast and the rest of the costs were absorbed by the school meals service.

Implications

The fact that these children receive a meal in the morning positively affects their concentration levels, and therefore improves school work. The club has also helped to reduce the number of children who are late for school because they have a reason to get to school early.

In social terms, the Breakfast Club is a chance for children to meet their friends before school starts. It is said to have a 'civilising effect', teaching children table manners as well as instilling in them the importance of a nutritious breakfast.

BARBER, M. (1996). *The Learning Game: Arguments for an Education Revolution*. London: Victor Gollancz.

Aim

This book, aimed primarily at policy makers, considers the recent history of the British educational system. The author proposes ways in which provision, policy and teaching could be revised in order to overcome problematic issues, such as under-achievement and ineffective management of time. It addresses the issue of study support and offers proposals for school improvement.

Target Population

The book relates to education of all school-age children, with particular reference to disaffected and disadvantaged children in inner city areas.

Description

In Chapter 9 of his book, the author sets out an 'individual learning promise' and discusses a number of measures that could be taken to create a learning society. Study support is identified as one of the means by which this may be achieved.

Three major types of study support are identified:

- learning done at home;
- learning done at school outside the formal day;
- organised activities in locations outside school.

The author begins by acknowledging that many thousands of children participate in organised learning out of school. Young people reap 'incalculable' benefits from such participation, including the opportunity to experience a different social setting in which to learn about getting on with other people. Children are able to participate in a wide range of activities and can discover their talents and interests. These opportunities are important in developing individual competencies, self-esteem and motivation to learn.

However, it is argued that such opportunities are currently haphazard and are dependent on parental attitudes and income. A more systematic approach should be taken, especially in terms of funding and organisation. Such provision is particularly needed in disadvantaged areas.

Implications

The individual learning promise should include opportunities for all children to participate in study support activities organised at school or elsewhere. The author suggests extending the school day to provide opportunities for study support. Schools would provide the basics of literacy, numeracy and technological competence. In addition to the formal day, the school timetable should be extended to include the nurturing of moral codes, and democratic and environmental education.

Opportunities for disadvantaged children could be provided through a network of study support centres linked to local universities. These would offer homework clubs, residential opportunities and cultural visits. Such centres should have access to information technology, including CD-ROM, Internet and ISDN lines to enable

children to access sources of information and expertise. The centres could be staffed by a combination of professionals and volunteers (including trained university students).

There is a need to recognise the voluntary participation of young people in study support activities. This could be done through records of achievement in a computerised form, with a system of accreditation through the National Framework of Qualifications.

BIRMINGHAM EDUCATION AUTHORITY (1997). *UFA: University of the First Age*. Birmingham: Birmingham Education Department.

Aim

This article describes how the Birmingham-based University of the First Age (UFA) introduced multi-sensory learning in order to enhance understanding and improve achievement. The project aimed to combat disaffection, raise self-esteem and educational achievement and strengthen the area's economic potential. It sought to maximise pupils' potential through activities that stimulate not only the logical faculties, but also the visual, kinetic, musical and spatial intelligences which can be ignored by mainstream education.

Target Population

The initiative was targeted at pupils aged 11-14 because pupils in this age-group had been found to be less interested in academic study.

Pupils from six pilot schools in Aston, Birmingham were offered the chance to participate on a voluntary basis. The initiative proved so popular that teachers had to select participants. Three hundred pupils of mixed ability were selected, with the main criterion for inclusion being that they wanted to be part of a learning experience.

Description

UFA draws on Professor Howard Gardner's theory of multiple intelligences, which suggests that, because the current education system is focused on logical and linguistic channels of acquiring knowledge, children who have aptitude in other areas may be at a disadvantage. It uses a highly interactive approach in which pupils are challenged and given opportunities to pursue their interests.

The pilot was funded by City Challenge, Birmingham LEA, the TEC and the Chamber of Commerce. Pupils were required to opt for one of the following subjects for a three-year period: science, technology, maths, French, Spanish or Urdu. UFA provided holiday schools which ran for six hours a day over two weeks, at the University of Central England.

Implications

The report concludes that the scheme gives teachers the time and freedom to be more expressive in their teaching, and the absence of a prototype prompts much valuable discussion about what constitutes a good multi-sensory lesson.

Children are given the opportunity to use a number of intelligence centres in the brain, and it is implied that this improves their learning and motivation. They also benefit by being members of two institutions (school and UFA). The need to make a three-year commitment may deter less motivated pupils, although the suggestion is that this group benefits more than highly-motivated pupils.

The project makes extensive use of information technology, and the companies involved participate in shaping and developing the employees of the future.

BUSINESS IN THE COMMUNITY (1996). *Roots & Wings: Mentoring in the Community*. London: Business in the Community.

Aim

This brochure describes *Roots and Wings*, a national programme of mentoring involving business volunteers. The mentoring programme aims to build from the individual's own 'roots' and to develop their 'wings' of self-confidence and self-belief.

Target Population

Roots and Wings is aimed at three broad categories of young people and adults:

- students in full time education, aged from 14 upwards (e.g. GCSE, A-level and college students). Mentoring for these students is typically on a one-to-one basis.
- young people who are at risk in the community;
- adults who value input from an employed person.

Description

Many of the programmes involve the pairing of a single company and school. Up to 30 mentors offer their services in any one school. Where there are fewer volunteer mentors, a consortium of companies join together to satisfy the demand. The mentors devote between two and four hours a month to the scheme.

To ensure that standards are met, the scheme involves the satisfaction of certain criteria which are set out in a 'Quality Framework'. These are as summarised below.

- Support from senior management of the companies and schools.
- A clearly defined programme structure and duration period.
- Clear and obtainable objectives.
- Orientation and training for mentors and mentees.
- Ongoing support and monitoring.
- Evaluation and review.

The brochure identifies a number of benefits for both the mentees and mentors. It is suggested that mentors develop professionally, especially in terms of interpersonal and communication skills. The authors state that 'evaluation work undertaken by independent researchers and schools in very deprived areas' has demonstrated a number of improvements for the students involved. These include: improved school attendance; better preparation for learning; willingness to apply their efforts across the curriculum rather than just on favourite subjects; and improved communication skills. It is claimed that mentored students have achieved better than expected GCSE performance; are more likely to stay in full time education and training after Year 11; and may become role models for others in their year group

The authors concede that the identified improvements cannot be attributed solely to the mentoring scheme, but suggest that mentoring, in the context of a well managed school can help improve pupils' performance and raise their aspirations at 'crucial transition stages'.

COOPER, G. (1991). 'The role of outdoor and field study centres in educating for the environment', *The Journal of Adventure Education and Outdoor Leadership*, **8**, 2, 10-12.

Aim

This article discusses the role of field study centres in providing outdoor education. The outdoor centres are considered to be suitable arenas in which to educate students about the environment and to develop personal, social and study skills.

Target Population

The centres cater for a wide spectrum of pupils and professionals, and provide a range of activities, from discovery learning for younger children to aspects of GCSE and A-level science curricula. The target population is therefore very wide.

Description

There are over 1,200 day and residential centres provided by Local Education Authorities as well as voluntary and commercial organisations. The two main traditions of outdoor education in Britain are summarised below.

- **Field Studies:** particularly linked to the study of sciences such as biology, geography and geology. The Field Studies Council, an independent organisation was founded in 1943 and administers 11 centres. It was initially aimed at sixth formers (Year 12) but now opportunities exist for adults and younger children. The centres are located both in rural and urban settings.
- **Outdoor Pursuits:** first inspired by the Outward Bound movement of the 1940's. Courses were designed to develop personal qualities such as self reliance and leadership through challenging activities. The programmes developed are increasingly based upon adventure activities such as canoeing, abseiling and rock climbing.

The common theme within the two types of outdoor education is the nurturing of social skills. The need to communicate and co-operate effectively is essential to learning outcomes. Outdoor centres are removed from the constraints of the classroom and the school timetable. Learning is experiential, and involves group discussions and decision making. A residential experience at a centre can encourage collective responsibility, tolerance and understanding. The author states that it is common for students who underachieve in the classroom to excel during outdoor courses. The centres can assist in motivating students and developing enthusiasm for learning and the environment.

Implications

While the author recognises the benefits of programmes to encourage personal and social skills, he feels that the provision could be expanded to include environmental education. The article includes a description of a model for environmental education based upon raising awareness, gaining knowledge and developing skills.

Recommendations are offered for the extension and development of outdoor centres, and these are summarised below.

- Centres should aim to improve study support and to accommodate the needs of the students whilst considering the environment.
- Personal, social and environmental awareness and skills should permeate the work of centres.
- Centres should avoid narrow programmes based on academic fieldwork or physical outdoor activities. Environmental learning could be encouraged through art, drama or problem solving.
- The learning objectives of activities should be clearly stated and monitored.
- Teaching and learning styles should be varied and flexible depending on activities and situations.
- Programmes should encourage pupil awareness of political, economic and ecological issues.

CROALL, J. (1995). 'Roaring success', *Times Educ. Suppl.*, **4125**, 21 July, 17.

Aim

This article describes the Tiger Club, an after-school support scheme for children who are often ignored by the teacher. The aim is to give these anxious, quieter or introverted children the opportunity to become more extrovert.

Target Population

Tiger Clubs are aimed at introverted primary school children whose needs may be overlooked by teachers.

Description

Tiger Clubs were set up by the National Pyramid Trust. The club described in the article is one of ten in Bristol. Others have been established in Hillingdon, Hounslow and South Glamorgan. The activities are designed to build children's confidence and social skills. Children are offered a range of practical activities such as outdoor games, arts activities and cooking.

The clubs are staffed by volunteer PGCE students, for whom they are seen as valuable experience. The adult: child ratio is never more than 1:4.

Before joining Tiger Club at age seven or eight, children are screened on work progress, school attendance, physical development and social skills. This process is carried out to identify children who may benefit from the club, as well as those in need of alternative help, such as counselling.

Sessions take place at school each week for 90 minutes. Children are guided through a ten-week process which is known by the organisers as 'Forming, Storming and Norming'. (No further details about this process are given.) A crucial part of the Tiger Club is that all the children are given lots of individual attention to counterbalance the fact that they are often ignored, either at home, in the classroom or in the playground.

Implications

The article reports that the educational social worker who originated the scheme followed up a group of children who had attended the first club when they had reached their third year of secondary school. The research indicated that the scheme had helped the children academically and/or socially.

EDUCATION EXTRA (1997). *Out of School Childcare Initiative: Succeeding Out of School*. London: DFEE.

Aim

This practical guide describes a survey of good practice in after-school clubs set up through the Out of School Childcare Initiative (OSCI). The aim of such clubs is to provide learning-based activities for children while helping parents to combine family and working life. The guide is based on a report which sought to illuminate the variety of provision and help schools decide whether to start or improve their own club.

Target Population

The guide is based on 50 good practice schools (37 primary and 13 secondary) recommended either by Training and Enterprise Councils or by the charitable organisation Education Extra. The survey included teachers, club staff, parents and children.

Description

This type of club is funded through local authorities or by the school itself. In order to gain OSCI funding, schemes must:

- help parents make a greater contribution to the local economy;
- be run on business lines to ensure that they will be able to continue once OSCI funding ceases;
- meet all statutory requirements set by the Children Act.

The guide uses case studies to look at the different ways schools provide study support. The use of case studies makes it possible to consider the various socio-economic factors that may influence the development of a club, such as the role of parents, and governors, location of school etc.

The survey found that on average 24 places were provided by each club each night of the week, although attendance fluctuated. Clubs often took children from a number of schools.

Some space is given to the fact that funding through OSCI brought benefits for older children in secondary schools. Of the 13 secondary schools in the survey, over half reported that there were benefits in terms of study skills, confidence and social skills. Benefits reported by secondary schools include: an improvement in attitude to work and school, better relationships with peers and teachers; and improved examination grades.

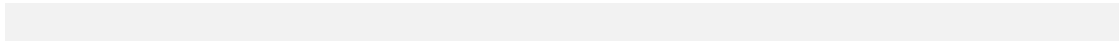
Implications

The guide puts the costs of administration and funding into perspective by considering the benefits that schools can hope to reap from well-run clubs. It has been widely documented that out-of-school clubs and study support activities help to raise academic performance, encourage positive attitudes towards learning and improve behaviour because:

- supportive staff can provide help in areas of weakness;
- a learning environment complements the school curriculum;

- curriculum enrichment offers opportunities for pupils to explore and pursue interests;
- pupils are given the opportunity to become confident and independent learners.

The authors acknowledge the fact that there is no single successful model of organisation, staffing and partnership for an after-school childcare scheme. It is crucial to recognise that a pupils have a range of needs at different ages that will determine the type of provision offered.



GHOURI, N. (1997). 'Nobody even asked the score', *Times Educ. Suppl.*, **4244**, 31 October, 7.

Aim

This article describes the North Tyneside literacy and numeracy pilot scheme, devised by the Local Education Authority to raise standards and basic literacy skills.

Target Population

The scheme targeted ten-year-old pupils from Shiremoor central and middle schools, in North Tyneside.

Thirty pupils were chosen as needing extra help in order to reach the required standard for their key stage 2 national tests. The programme adviser made it clear that these pupils were not failing but were rather in need of a little help to achieve their academic potential.

Description

Pupils followed an intensive week-long residential course of academic study. The rigorous study programme was staffed by six teachers who devoted their half-term to the scheme.

The day began just after breakfast at 8 a.m. Curriculum topics were approached in such a way as to enthuse the pupils. For example, when the pupils read 'Charlotte's Web', the story of a spider who lives in a barn, they were taken to a cobweb-ridden barn in a farm. Afternoons were devoted to out-door activities, to complement the morning of study.

Implications

There was no official evaluation of the study programme but the pupils' enthusiasm was clear. When told that there were no facilities to see or hear a crucial football match at the study centre the pupils were initially disappointed. On the evening of the match, however, not one mentioned the game as they were so engrossed in their work.

Teachers themselves felt the course gave them an opportunity to 'test our new and sophisticated study skills,' and reported that the course improved their teaching skills.

GREAT BRITAIN. DEPARTMENT FOR EDUCATION AND EMPLOYMENT (1996). *TECs Getting Results: the Out-of-School Childcare Initiative* (The Good Practice Series). Sheffield: DFEE.

Aim

This report outlines the major objectives of Training Enterprise Councils (TECs) in relation to provision of study support and offers recommendations for good practice. The overall aim of the initiative was to enable parents and carers of school-age children to participate fully in the labour market.

Target Population

The initiative is directed at adults, namely parents (mainly working mothers), carers and educators of school-age children. However, the provision itself is targeted at school-age children. The types of provision take into consideration the needs of a variety of children. Factors such as age, socio-economic background, race, special educational needs and disabilities are catered for by many community-based schemes.

Description

Many TECs support childcare programmes because they are committed to equal opportunities for the female labour force. An importance is placed upon enabling mothers with childcare responsibilities to work or to undertake training.

The schemes operate at various times, before school, after school, during the holidays, and duration varies from year long schemes to shorter intensive schemes. The provision comes in a variety of forms, but there are some common goals. Essentially, the schemes seek to raise educational achievement and to link after-school provision to community development and economic regeneration.

Many out of school schemes are based in schools. This provides continuity for children and is convenient for parents. It also offers opportunities for learning support and extension, such as homework and reading support.

Implications

The study support provision is designed to yield a range of educational benefits, including: improvements in academic attainment; raising post-compulsory retention rates; positive links between primary and secondary schools; and raising levels of motivation and attainment.

GREAT BRITAIN. DEPARTMENT OF NATIONAL HERITAGE (1996). *Setting the Scene: the Arts and Young People*. London: DNH.

Aim

This document set out the previous government's commitment to the arts. The aim of the document is to celebrate the arts and to reassert their importance to individuals, communities and society as a whole. This document makes many practical recommendations for possible action by policy makers, funders and arts practitioners in England. Consultations were planned to decide whether 'schools should be required to include in their prospectuses details of out of school hours arts activities and links with artists and arts organisations.'

Target Population

It is stated that involvement in the arts should be lifelong, from pre-school years to old age.

Description

The report views the National Curriculum as a minimum entitlement for pupils. The success of the National Lottery had enabled the schools to develop as a base for arts activities for pupils and the local community out of school hours. By using the school as a base, pupils have ready access to the tools of their art, such as sheet music and musical instruments. However such facilities will not always be found in schools. That is why partnerships with local art groups are essential.

A possibility for developing, recognising and encouraging good practice is to introduce an 'Artsmark' scheme. In partnership with the Arts Council of England, individual criteria for schools and arts programmes could be drawn up. Artsmark would recommend that schools offer a minimum of four hours per week for artistic activities additional to curriculum work, during the week and at weekends.

School should be the place where people are taught the value of the arts, but there are wider opportunities outside school, and the opportunity to experience a concert or exhibition should remain accessible throughout life. The arts can provide a rewarding counterbalance to academic pressures.

The document sets out a range of activities that children should expect to be offered through the National Curriculum, and through extra curricular activities, clubs and training schemes. It maintains that children should have the opportunity to:

- join art clubs in school or locally;
- visit exhibitions and galleries on a regular basis;
- have music tuition or attend a music school;
- observe, work with and be taught by professionals such as dancers, actors and visual artists;
- take part in drama productions;
- attend courses and festivals of poetry and literature, and of film, video and media.

GREAT BRITAIN. DEPARTMENT FOR EDUCATION AND EMPLOYMENT (1998c). *Premier League Clubs to Support Literacy Drive* (News Release). London: The Football Association Premier League.

Aim

This press release announces the Playing for Success initiative to establish study support centres within the premises of Premiership football clubs. The Football Association Premier League's partnership with the government is described as 'a concerted drive to improve literacy and numeracy levels amongst young people in England.'

Target Population

The scheme targets primary and secondary school pupils. Study centres are located in inner city areas, and disaffected pupils are encouraged to make use of the provision. More boys than girls are expected to be attracted to the centres.

Description

The Playing for Success initiative is part of the Government's drive, announced in the White Paper *Excellence in Schools*, to expand study support. These study centres are funded by the government, the clubs and commercial sponsors. Sheffield Wednesday, Newcastle United, Leeds United and the associated LEAs have piloted the scheme.

The centres offer study support programmes focused on improving literacy, numeracy and IT skills. Pupils are given the opportunity to study in a stimulating environment, doing homework and tackling literacy and numeracy problems.

The centres are open up to six times a week for periods of four hours. They are run by qualified supervisors supported by local university students working part time. Star players are also involved, visiting the centres to motivate the pupils to learn.

Implications

The press release does not give any indication of the success of the pilot phase, but it is stated that Chelsea, Sheffield Wednesday, Newcastle and Arsenal have agreed to establish study support facilities at their grounds. A large number of Premier League Clubs have expressed an interest in joining the initiative in the future.

As a result of the scheme, Clubs enhance their involvement in the local community and pupils become more motivated and enthusiastic about attainment. The presence of football idols may provide the children with positive role models and they may perceive studying at the Premier League grounds as prestigious.

GREAT BRITAIN. DEPARTMENT FOR EDUCATION AND EMPLOYMENT (1998d). *School Teachers' Pay and Conditions Document 1998*. London: The Stationery Office.

GREAT BRITAIN. DEPARTMENT FOR EDUCATION AND EMPLOYMENT (1998e). *School Teachers' Pay and Conditions of Employment 1998* (Circular No. 9/98). London: DFEE.

Aim

These reports set out the statutory conditions of employment of school teachers in England and Wales. They contain guidance about the payment of teachers for their involvement in out of school hours learning activity.

Description

Under existing legislation, teachers work up to 1,265 hours of 'directed time' during 195 days per year. The Secretary of State for Education and Employment asked the School Teachers' Review Body to consider how teachers could be given appropriate remuneration for any additional work undertaken in study support activities.

The resulting DFEE guidance came into effect on 1 September, 1988. Teachers who undertake out of hours learning support activities are eligible for a discretionary payment, subject to the following conditions:

- teachers have been asked by the head to participate and they have agreed to do so;
- the commitment required is substantial and, where appropriate, regular;
- time spent on out of hours learning activities is additional to directed time;
- the level of payment is entirely for the relevant body to determine and must be reviewed on a regular basis (at least annually).

Some staff are not eligible for payment because they are not subject to teachers' working time provisions. This includes heads, deputy heads and advanced skills teachers. Teachers employed part-time are similarly ineligible for additional payment under their existing contracts (although part-time teachers could be paid under a separate contract or by an extension to their existing contract).

GRIGGS, S. and GRIGGS, C. (1993). 'Alternative hours: a response to increased pressure upon pupils at Willingdon School, East Sussex', *School Organisation*, **13**, 2, 199-212.

Aim

This article discusses one headteacher's experience of restructuring the school day. The aim was to enhance teaching and learning, facilitate after-school activities and to provide extra time for teachers to fulfil commitments brought about by new education initiatives.

Target Population

The school involved is Willingdon Secondary School, East Sussex.

Description

The school day has been restructured so that school begins at the earlier time of 8.50 a.m. and there are two double sessions before morning break. A further double period occurs between break and a shortened lunch period. The afternoon consists of a double period and the official school day ends at 2.35 p.m.

After 2.35 p.m. the pupils have the opportunity to participate in a programme of after school activities. These include a Homework Club and 'Enrichment Activities'. The Homework Club runs every afternoon. Enrichment activities take place on Tuesdays and Thursdays and include: sports; handwriting and spelling; badminton; science catch-up; and environment clubs. All such activities are run voluntarily by teachers and parents. Pupil involvement is also voluntary.

The early finish to the school day has given teachers the opportunity to satisfy their administrative duties and to hold staff meetings.

Implications

The restructuring of the school day has had many perceived benefits for teachers, pupils and parents.

The new timetable allows teachers to cope with the increased demands placed upon them for the preparation and marking of GCSE programmes and alleviates lunchtime supervision problems. It helps pupils to maintain their attention levels until the end of the day and gives more time for homework, which can be supervised at school. Teachers and parents can avoid rush hour traffic and the associated risk of accidents when travelling to and from the school, and pupils can travel home in daylight.

HAMMERSMITH AND FULHAM EDUCATION AUTHORITY (1997). *Seagram Summer Challenge 1997*. London: Hammersmith and Fulham Education Authority.

Aim

This report describes a structured summer programme for pupils of secondary school age. The aim of the Seagram Summer Challenge was to encourage students to raise their levels of achievement and to develop new interests. The scheme also aimed to increase students' access to educational and vocational opportunities.

Target Population

The 1997 pilot scheme involved 14-19 year olds at Phoenix High School, West London.

Description

The Seagram Summer Challenge took place in West London for three weeks during the summer of 1997. It was developed from a working partnership between three agencies: a commercial company (Seagram), Hammersmith and Fulham Education Authority and the John Lyon's Charity.

The summer programme was developed after consultation with school staff, youth workers and pupils themselves. The programme lasted three weeks and covered three broad areas: academic; vocational; and leisure activities.

Volunteers from the commercial company worked alongside tutors and youth workers to provide a range of activities. Tutors were recruited from the staff of Phoenix High School and other secondary schools in the borough, and staff from the Education Department. Youth workers were appointed on the basis of their experience.

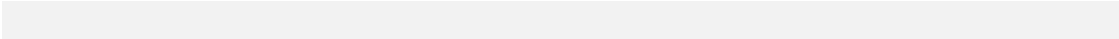
Implications

The pupils were asked to comment on the timing and duration of the project. A third of pupils responded and their comments were generally favourable in terms of the timing of the sessions. Half of those surveyed suggested the programme should run for six weeks, rather than three.

Teachers were also asked for feedback. The authors report that the staff were positive about the project. There was some concern about inconsistent attendance and about the timing of certain activities, i.e. the early start to the day and clashes between timetabled activities.

The authors make a number of recommendations for the future provision of similar summer programmes. A summary is given below.

- The programme should include more vocational provision and study skills courses.
- Planning of the project should be thorough and involve the co-ordination of tutors, youth workers and volunteers.
- A single co-ordinator should oversee the entire planning process.
- Programmes should be offered to all 14- to 19-year-olds in the borough.
- Enrolment should be well publicised in advance of the project and should involve an Open Day. Full details of the content of the programme should be available.

- Pupils who have attended the scheme should be recruited to publicise future schemes.
 - Volunteers should be trained and recognition for their involvement should be certified.
 - Trips should be linked to the curriculum.
 - Evaluation should be extensive and include pupils, volunteers and resource providers.
 - Celebration of achievement should be planned and the presentation of awards should follow immediately.
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HAND, J. (1995a). 'Work with black young people. Hammersmith and Fulham African-Caribbean Project.' In: HAND, J. *Raising Standards in Schools: the Youth Work Contribution*. Leicester: Youth Work Press.

Aim

This article describes a project that aimed to provide study support for underachieving African-Caribbean students in order to accelerate their academic progress. This was a response to concern among members of the local community about the disproportionate number of black pupils excluded from schools within the borough.

An objective of the project was to improve channels of communication with these pupils' parents. It was planned that parents would become included in decisions relating to their children's school options, careers and further education.

Target population

Different facets of the project targeted African-Caribbean young people aged between 10 and 25 years old. Initially, 30 students who were at risk of being excluded were targeted, in five of the eight secondary schools in the area.

Description

The project obtained funding from the Home Office to support two youth leaders and the equivalent of seven full-time teaching staff. The two youth workers set up a programme of work on a local estate, close to a key secondary school. A personal development programme was initiated which included training in life skills and confidence building. Part of the youth officer's role was to increase the number of alternative opportunities for young people (i.e. through after-school programmes). Projects such as structured self-help schemes, homework clubs and career advice sessions aimed to involve up to forty young people.

As part of the project, the youth officer joined forces with the White City Youth Project to set up a summer scheme targeting 13-18 year olds. This was aimed partly at reducing young people's involvement in crime and drugs use during the summer holidays. The scheme was based at a local youth centre. It ran for five weeks and attracted nearly 200 young people. Activities such as a sports clinic on basketball, American football and cookery, as well as day trips, encouraged team work, trust and leadership ability.

The evaluation was completed in 1994. It reported that two Youth Officers had worked with over 500 students who were at risk of being excluded. None of these students were permanently excluded from school.

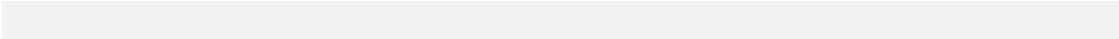
From the schools involved, 27 pupils were successful in their application to the William Morris Academy, a new and prestigious sixth form. (It is not certain that this success can be solely attributed to the project.) The Youth Officers have continued to build on trust and confidence so that young people and their parents are now accepting guidance and help.

Implications

A positive aspect of the summer scheme was that the older students involved in the project found themselves working with and motivating the younger members. Strong links were formed with young people in the community; with the Youth Officers and secondary school teachers; and with parents and staff in most school. Other head teachers have asked if their school can become part of the scheme.

The staff within the project felt they had developed skills in partnership teaching and forming working relationships with parents, as well as providing examples of good practice which other teachers can use.

The author notes that youth officers can only really succeed if they become immersed in school life, attending staff meetings and open days, and that cultural differences and expectations must be understood and acknowledged.



HAND, J. (1995b). 'Youth work in a rural school. Queen Elizabeth High School, Hexham, Northumberland.' In: HAND, J. *Raising Standards in Schools: the Youth Work Contribution*. Leicester: Youth Work Press.

Aim

This article describes two projects, a youth Initiative and a Curriculum Project, established in response to increasing vandalism in Hexham. The projects aimed to strengthen young people's sense of community and to broaden students' experiences, with a view to curbing vandalism.

The school is continually developing itself as the central organisational base for informal and social education of young people in the area.

Target Population

The school in which the projects were based is located in a rural area where there is a great commitment to community education.

The Youth Initiative was aimed at all 1,800 young people in the town, while the Curriculum Project was aimed at young people considered to be vulnerable or at risk of educational failure.

Description

The range of youth provision was co-ordinated throughout the school and included a junior youth theatre group and an environmental project which used the school grounds for meetings, either after school or at lunch times.

Youth Initiative Project

This project was set up in order to curb incidences of vandalism within the town. The school distributed a survey to 1,800 students, aged between 12 and 18 years. Of these 714 were returned, a response rate of 40 per cent. Young people were involved in the analysis of the questionnaires which provided a wealth of information about attitudes and a range of ideas for local amenities. Students felt their area had nothing to offer them in their spare time, and the most popular suggestions included a multi-screen cinema and a bowling alley.

The survey also found that young people wanted to be involved in the development and management of facilities for young people. These results were presented to the council who allocated £10,000 towards the development of an arts venue. A further sum of money was donated by British Telecommunications plc.

The Curriculum Project

This project included group work, community placements, activity clubs and a residential centre. A maximum of 16 students at any one time followed individually negotiated programmes.

Referrals to project came from the pupils themselves, their parents or teachers. Individual counselling took place before, during and after the project. In addition, teachers, professionals and youth workers were involved in delivering aspects of the curriculum.

A contract was agreed and signed by each student at the start of the project, and each participant was allocated a personal tutor. The curriculum project timetable stretched from 8.30 a.m. to 10.30 p.m., including weekends. (Student involvement is not described in detail.)

Students were rewarded for their involvement through Project Trident Awards and qualifications in areas such as sailing or canoeing as well as through accreditation in their Records of Achievement.

Implications

The success of such a project in this rural area was considered to be due to the close involvement of the community education officer, based within the school, as well as the team of youth co-ordinators and volunteers. Youth work within the school was said to provide greater opportunities for staff to respond to issues concerning pupils, and the project developed good inter-disciplinary relationships between the youth workers and teachers.

Aim

This report describes the wide range of academic, sporting and practical activities offered by Haringey's Summer University. The programme aimed to provide study support for school work. The organisers hoped the initiative would have an impact on juvenile crime.

Target Population

The Summer University was targeted at secondary pupils. A total of 117 students completed the programme for the first Summer University, of whom 58 per cent were female. The participants were mostly aged 12-15 years old. The programme attracted students from a wide range of ethnic origins.

Description

In Haringey eight per cent of all secondary school pupils are at the most elementary stage of comprehending the English language. A consortium of teachers, parents, youth workers and council members worked together to organise the University to give pupils additional support with school work, whilst occupying them during the long summer holiday.

For a period of two weeks, students attended study support courses as well as practical workshops. The Post Office and the Police ran World at Work workshops which included mock interviews, First Aid, personal safety and Judo lessons.

A presentation day was held for all students who successfully completed the programme. They received a certificate of attendance and had the opportunity to share examples of their work with fellow pupils.

The evaluation was based on data from the students' enrolment forms and from 92 completed questionnaires, the majority of which indicated satisfaction and enthusiasm for the scheme.

Half of the students spent the same amount of time on curriculum courses as on other activities. The other half spent more time on curriculum courses. All of the students wanted the programme to last longer than two weeks.

Implications

Three specific benefits may be noted in relation to this project. Firstly, the small class sizes allowed an opportunity for specific attention. Second, teachers' relationships with the pupils improved, and this improvement continued throughout the next academic year. Third, students from all ethnic backgrounds had access to relevant facilities.

HODGES, L. (1996). 'Libraries to help with homework', *Times Educ. Suppl.*, **4163**, 12 April, 4.

Aim

This article describes a network of homework clubs set up in public libraries to help pupils with their projects and homework after school and at weekends. This LEA initiative aimed to boost educational achievement.

Target Population

The target group was secondary school pupils (aged between 11 and 16) in the London Borough of Southwark.

Description

The LEA had found that librarians were willing to help pupils search for relevant information, but they did not have enough time to give all the assistance the young people needed. It was therefore decided to increase the involvement of the library service to provide study support specifically in relation to homework.

Two-hour sessions were held on four weekdays (after school) and on Saturday mornings. Six part-time staff known as 'homework experts' were hired and trained to supervise the sessions.

Pupils were given help to answer questions about their work. There were opportunities for them to learn how to use computers, including the Internet and CD-ROM technology. As part of the scheme pupils were shown around the library and told how to find information, and were treated to a drink and a snack.

Implications

The scheme was newly established when this article was written, so it was not possible to comment on its effectiveness. The LEA planned to evaluate the success of the clubs, the cost per child and whether the clubs were having a positive effect upon educational attainment. The evaluation would consider whether the clubs led to an increase in completed homework, and whether beneficial effects could be assessed in terms of pupil aptitude and enthusiasm.

KIDS' CLUBS NETWORK. (1996). *Aiming High: Kids' Clubs Network's Quality Assurance Scheme for Out of School Clubs*. London: KCN.

Aim

This pack is aimed at the providers of out of school clubs organised as part of the Out of School Child Care Initiative. It offers advice and guidelines for good practice, quality assurance and accreditation. The pack contains three elements: a Quality Workbook; Appendices; and a promotional poster.

Description

Aiming High is a national Quality Assurance scheme which sets clear quality standards for all aspects of a Kid's Club, from staffing, premises, health and safety to relationships between children, parents and the community.

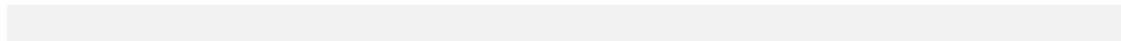
The scheme builds upon the Children Act 1989 (G. B. STATUTES, 1989) and guides the clubs through three quality levels.

The KCN Quality Assurance scheme assesses 16 'quality areas' of a club's operations. The Quality Workbook sets out the rationale underpinning the Aiming High initiative, outlines assessment criteria and offers examples and suggestions for clubs to meet the quality standards. A club can be assessed at level 1, 2 or 3.

The Quality Workbook outlines the following:

- the standard contained in the quality area;
- a definition and explanation of the standards;
- the indicators and evidence needed to satisfy expected standards.

The Appendix contains templates of portfolio criteria. Clubs complete the portfolio, and undergo an inspection in order to gain accreditation. KCN representatives and specialists in the field of out of school hours provision make up the National Quality Assurance Panel, which oversees and certifies the quality of clubs. The KCN certificate is valid for two years from the date of issue.



KINGSTON, P. (1996). 'Easter egg-heads on a roll', *The Guardian*, 26 March.

Aim

This article describes Easter revision courses designed to raise the attainment of GCSE and A-level candidates.

Target Population

The courses are aimed at GCSE and A-level pupils who are about to sit examinations in the summer term. Pupils come from both the private and state sector. The main clusters of colleges operating the scheme are in London, Oxford, Birmingham and Cambridge.

Description

Easter revision courses typically last between five and ten days, and allow students to revise for a maximum of two A-levels. The days are long and intensive and the tutor groups are small with no more than eight students. Students must have completed full courses for the A-level or GCSE being revised.

Pupils are trained to analyse exam papers, understand rubrics and to plan essays. It is expected that students, with hard work, will improve their performance by one or two grades.

The courses are particularly attractive to students who need 'A' grades in order to pursue careers in medicine, dentistry or veterinary science.

The courses cost between £250 and £500 for a week, depending on whether board and lodging is included. The demand for revision courses has increased since the mid to late 1980s. The schemes serve equal proportions of state and public school pupils.

Implications

The article suggests that study support and revision courses are now offered to a wider spectrum of pupils than previously. It asserts that this provision has resulted in improved attainment for a large number of pupils.

KLEIN, R. (1995). 'Escape route from the fire of alienation' (TES2), *Times Educ. Suppl.*, **4102**, 10 February, 6.

KLEIN, R. (1996). 'A steering hand away from trouble', *Times Educ. Suppl.*, **4150**, 12 January, 5.

McGAVIN, H. (1995). 'Success for black boys' mentors', *Times Educ. Suppl.*, **4146**, 15 December, 9.

Aim

These three articles describe a mentoring project set up with the intention of halting the rise in school exclusions among African Caribbean boys.

Target Population

The programme was targeted at African Caribbean boys who were at risk of academic failure or of exclusion from primary and secondary schools. Many of these boys had displayed an inability to deal with difficult situations, resulting in violent behaviour at school. The scheme operated in three inner city areas of Birmingham: Handsworth, Aston and Newtown.

Description

In 1994-5, there was a 17.6 per cent increase in school exclusions in Birmingham. A disproportionate number of the pupils excluded from school were African Caribbean boys. This led a headteacher and a parent to establish the KWESI project in 1995, with financial support from the LEA.


The project's name is an Akan word from Ghana. The name was chosen to provide an acronym for the qualities looked for in mentors: Knowledge, Wisdom, Experience, common Sense, and Insight (KWESI). The project was founded on the belief that black boys were particularly prone to low self-esteem, and that the boys lacked contact with black men who could provide them with positive role models.

The project recruited black men to act as mentors to boys from African Caribbean backgrounds who were thought to be at risk of exclusion. In the first year, a total of 30 mentors worked with 150 pupils in 20 primary and two secondary schools. Visits took place on a weekly basis: meetings were held at school and sometimes at the child's home.

The mentors trained for seven months and were supported by the LEA throughout the scheme. Mentors worked closely with heads, teachers, and parents. The role of the mentors was to show an interest in the boys and to help build their self esteem by praising their achievements. Although each mentor developed his own approach, the article by Klein (1996) gives an example of a meeting between a mentor and mentee in which the mentor encouraged the boy to discuss the week's events, focused on problem areas, devised strategies to overcome difficulties, and reinforced the boy's positive behaviour.

Implications

It is hoped that the intervention of the mentors will act as a preventative measure against the boys becoming drawn into a cycle of disaffection, exclusion and potential involvement in juvenile delinquency. The articles by McGavin (1995) and Klein (1995) suggest that there were plans to extend the project to help excluded pupils to re-enter school, and to introduce a mentoring scheme for black girls. Although these two articles were written at the beginning of the scheme, before any outcomes could be reported, the article by Klein (1996) includes positive comments from three boys who felt that the mentors had helped them to control their negative behaviour.



MacBEATH, J. (1997a). *Code of Practice: Study Support. Out of Hours Learning*. Glasgow: University of Strathclyde, Quality in Education Centre.

Aim

This practical guide describes the Princes' Trust Code of Practice. It is aimed at the providers of Study Support Centres (SSCs), and contains information, guidelines and summaries of good practice.

Description

The Code is at a pilot stage. A final version is planned for November 1998.

The Code of Practice has five main objectives as follows:

1. to identify common principles in study support, drawing on examples of good practice from around the country;
2. to offer strategies based on knowledge about learning, thinking skills and accelerated learning as a context for measuring good practice;
3. to provide a framework of standards with identifiable criteria which can be used by SSCs to evaluate and improve practice;
4. to suggest strategies and sources of support which can help SSCs to meet high standards;
5. to recognise and endorse quality through a system of external review and kite-marking.

The Code assesses 15 areas of a SSCs' provision. The areas range from 'involving students' to 'managing improvements' and 'considering the ethos.' It is recommended that each area undergoes three specific 'treatments': questions to be asked; evidence to be found and testing the evidence.

Questions to be asked

Six open-ended questions are posed which are designed to direct attention to certain principles or values. For example: 'Why has study support been introduced?', and 'Are purposes discussed, analysed and reviewed by stakeholder groups on an on-going basis?' The questions are arranged in ascending order of challenge.

Evidence to be found


Examples are provided of the type of evidence that might be used to demonstrate how the questions have been addressed. Evidence may be documentary or verbal. Examples include: mission statements; media reports; testimonies from participants; and evaluations by visitors..

Testing the evidence

Examples are given of requests that might be put by a visiting assessor to one or more stakeholders (e.g. tutors, students and parents). The requests are designed to assist SSC staff in assessing the degree to which goals translate into demonstrable competencies. The assessor asks a series of questions relating to the competencies, for example: 'Tell me what you see as the three main purposes of study support for your students' and 'Show me something which would give me an idea of how purposes work out in practice'.

Three stages of an SSC's development are recognised (emerging, established and advanced). Centres may be categorised according to their extent of development and level of provision. Five case study centres are described in the brochure as examples of Emerging, Established and Advanced SSCs.

The guide includes a proforma, which invites providers of study support to comment on the validity and usefulness of the pilot Code. A commitment is given to consider the resulting suggestions for improvement and development before the official version is finalised.



MacBEATH, J. (1997b). *Learning to Achieve: the Prince's Trust-Action's Study Support Evaluation and Development Project*. London: The Prince's Trust-Action.

Aim

This report describes a Prince's Trust initiative to support the development of Study Support Centres (SSCs). The centres aim to raise academic achievement and motivate pupils to become more purposeful learners.

Target Population

SSCs are targeted at pupils of secondary school age, particularly the most disadvantaged. SSCs are community based and designed to meet the needs of the individual within a given locality. The needs of socio-economically, culturally deprived and minority groups are well catered for in SSCs.

Description

The centres are usually open from 3.30-6 o'clock on weekday evenings, on Saturday mornings, and during the school holidays. They operate on a voluntary basis and are staffed by teachers and members of the local community. The students' needs are central: in broad terms, SSCs seek to develop the individual by offering the opportunities to work both in groups and alone.

The SCCs offer students access to a range of resources and provide them with encouragement, guidance and specialist help. Activities include homework clubs, revision sessions, sports, art, media, science, technology and careers sessions. SSCs are designed to raise achievement, enrich the curriculum and to improve core skills. They provide facilities and services to disadvantaged children who would not otherwise have access to them.

Implications

SSCs undergo external and internal evaluation to ensure validity and reliability. Central to the internal evaluation is the Princes' Trust Code of Practice. The code provides a common set of principles. It enables those involved in SSCs to meet the needs of their own community whilst working within a common framework.

The external evaluation is underway and is due to continue over the next three years. The evaluation will consider the impact of SSCs on students' levels of motivation and attainment. This will ensure quality and standards for SSCs, and will provide guidelines for similar initiatives in the future.

MORTIMER, P. (1990). 'Enough hours in the day?' *Education*, **175**, 18, 4 May, 440.

Aim

This article discusses one headteacher's experience of restructuring the school day to enhance teaching and learning.

Target Population

The school involved was a senior school comprising Year 7 to Year 11 (pupils aged 11-16).

Description

The Headteacher restructured the timetable so that all core and foundation subjects were taught before lunch. The time after lunch was used for PSE work, assemblies, class administration and private study or a study skills module. The new structure ensured students in Years 7-9 spent 23.5 hours a week in school and Years 10-11 followed the DES guidelines of 25 hours a week in school.

Implications

The author concludes that this type of school day allows more time for pupils to participate in extra curricular activities. Other benefits include more time for parents' evenings and the provision of the standard five days a year INSET.

The restructured timetable accommodates a number of features considered to be of benefit:

- there is time for the required core and foundation subjects;
- PSE can be taught to mixed year groups;
- there is time for Year 10 and 11 pupils to see teachers outside lessons but before the school day ends;
- homework can be started in the library during and after school hours;
- the school's laboratories, workshops, sports, CDT and IT facilities are available for after school use from 2.25 p.m. each day.

PITT, C. (1997). *Kent Children's University*. Maidstone: Kent County Council, Education Department.

Aim

This report describes the piloting of Kent Children's University, which was set up to support learning as a lifelong process by offering children study support. An important focus of the project was to build children's self confidence by recognising their achievements.

Target Population

The Children's University targeted pupils in Years 5 and 6 (aged 9-11). Over 1800 pupils participated in the pilot schemes.

Description

The project was piloted in 1996-7. Children had to choose a topic they wished to learn about and attend four two-hour sessions on consecutive Saturday mornings. No charge was made.

The courses were run at primary schools, secondary schools and environmental centres, and by 1997 four sites were in operation. Over 55 different activities were offered, including orienteering, environmental studies using information technology, Aikido and forensic science. Tutors were specialists or enthusiasts in their subject.

The range of activities was considered essential in order to allow children – perhaps for the first time – to pursue existing interests or to try something new. Children who successfully completed a module were presented with a certificate marking their achievement.

Implications

The pilot scheme was considered successful and there were plans to extend it to over 7000 children in 1997-8.

SEWELL, T. (1996). 'United front to preserve cultural practices', *Times Educ. Suppl.*, **4191**, 25 October, 10.

Aim

This article describes a scheme bringing together existing religious and cultural Saturday schools to combat under-achievement while preserving national, religious and linguistic practices.

Target Population

The initiative targeted children under the age of 16 from ethnic minorities (including African, African-Caribbean, Bangladeshi, Chinese, Italian, Polish, Tamil and Turkish) living in the London Borough of Lewisham. Many of the children were refugees, others had been excluded from mainstream school.

Description

The scheme organised Saturday schools into a consortium. Before the establishment of the consortium, academic provision in the schools was not considered to be of a high standard. There was an over-emphasis upon the '3Rs', and simple copying and completion of worksheets were often the only activities on offer to the children. In addition, there was ethnic, cultural and religious segregation.

The Ebony Saturday school is cited as an example of good practice. Based at Holbeach Primary School, Catford it offered children a combination of academic work and drama during two-hour sessions. This mix was designed to aid the 'holistic development of the child'.

Implications

The co-ordinator of the successful Ebony Saturday school attributed the children's commitment and motivation to the fact that their background and interests had been used as the basis for engaging them in the learning process.

The cross-fertilisation of cultures led the schools to address the needs of the pupils and to attempt to make learning more interesting and proactive. The emphasis shifted away from the '3Rs' and rote learning. Children learnt about the diverse composition of their local area and how the heritage of their neighbourhood shaped contemporary urban life. It was felt that as the learning experience became holistic, children became more aware of themselves, their culture and society.

In social terms, the amalgamation of the schools resulted in Saturday provision based upon a 'South London youth culture' rather than on the disparate philosophies of the children's parents.

The article suggests that the establishment of a consortium offers a more integrated and contemporary approach to supplementary schooling in inner city areas.

SPENCER, D. (1997). 'Mentors offer way out', *Times Educ. Suppl.*, **4223**, 6 June, 16.

Aim

This article reports a mentoring scheme set up in a Sheffield school with the intention of boosting the confidence of Asian girls and offering them suitable role models.

Target Population

The scheme targeted Asian girls in Year 9 at Hinde House School, located in a deprived area of Sheffield.

Description

The scheme developed as a by-product of a larger project called 'If I can, you can', set up in 1994 by four Sheffield women from education and business backgrounds. It had sought to encourage girls to take up non-traditional careers. A register had been established of more than 100 professional women who were prepared to visit schools and tell pupils, parents and teachers about their jobs and themselves. The scheme had been successful but women from ethnic minorities were under-represented.

The project organisers recognised that black and Asian girls lacked role models and careers advice so they established the mentoring scheme in order to offer the girls another source of support in addition to parents and teachers. The newly-registered mentors from ethnic backgrounds included a psychology graduate, a civil servant and a management trainer.

The mentoring took place every Wednesday afternoon for an hour. During the designated time, the girls sought guidance and advice about their futures.

Implications

The girls involved in the scheme reportedly found that it had given them greater confidence and enthusiasm for their future careers. The mentors provided useful and realistic role models and offered empathy and guidance.

It was thought that this scheme may be extended to other relatively excluded pupils in similar schools. By offering guidance and hope for the future, it was believed that levels of motivation and commitment to school may be enhanced.

TIMES EDUCATIONAL SUPPLEMENT (1996). 'Mentoring helps to halt rejection', *Times Educ. Suppl.*, **4156**, 23 February, 5.

Aim

This article describes the *Dalston Youth Project*, an initiative set up in Hackney which aimed to re-integrate disaffected young people into the education system through a combination of mentoring, counselling and short courses.

Target Population

The target group was disaffected 15- to 19-year-olds in Hackney. Most had been excluded from school: all were considered at risk of offending. The majority of students were black and 60 per cent were male.

Description

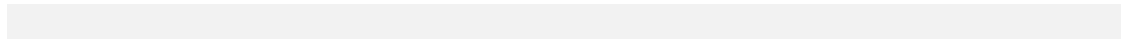
The project attempted to satisfy the needs and interests of the disaffected pupils, offering guidance, support and optimism for the future. The form and content of the education offered was devised with student's interests and capacities in mind. Consequently, a package of short courses was offered at Hackney Community College in computing, photography, building, caring, literacy and drama. Students also participated in sports sessions at a local leisure centre, worked on community radio, and attended information sessions on sexual health, drugs, law and careers.

Mentoring was integral to the project. Professionals, graduates and other suitable role-models offered their services to mentor and provide guidance and support to the disaffected students. As one mentor stated; 'I feel I'm almost like a personal therapist...which a teacher can't be.'

Implications

The project was reported to be successful, with 60 per cent of original participants participating in education, training, or in employment.

The success is attributed to offering young people the opportunity to try a range of subjects, with minimum pressure on them. Mentors felt that they were able to play a special personal role that teachers could not fulfil.



TOWER HAMLETS EDUCATION AUTHORITY (1997). Tower Hamlets Summer University Aims. London: Tower Hamlets Education Authority (mimeographed).

Aim

The Summer University was set up to provide the structures needed to facilitate and promote independent learning in young people. It sought to raise attainment by developing social skills and confidence and by promoting racial tolerance and good community relations.

Target Population

The scheme targeted all 14- to 21-year-olds in the London Borough of Tower Hamlets. (There is no information on the gender and ethnicity of the participants.)

Description

The Summer School set out to include young people in the administration and delivery of the programme. The programme was designed to embrace a mixture of academic, vocational, sports, arts, leisure and social activities. Factors such as facilities, length of course, supervision and total cost of course had to be taken into consideration. Transport was provided when students needed to move between sites. There were a number of related initiatives for school-age pupils, and these are outlined below.

Bridging course for Year 11 pupils

This week-long course was intended to address two issues: to prepare students for the transition from GCSE to A-level study; and to raise the profile of higher education in the borough.

Thinking globally, acting locally

This week of activities for Year 9 pupils encouraged them to look at issues affecting their lives and provided them with an opportunity to share their ideas with pupils from other schools. Each secondary school was invited to send four students each day. Development agencies such as CAFOD and Amnesty International offered a range of workshops.

Immersion English

This week-long course was run in partnership with University of the First Age in Birmingham. It targeted 60 school-age pupils whose reading level was lower than it should have been. Through multi-sensory teaching techniques, the course aimed to improve the performance of the students in written and spoken English.

Academic and vocational courses

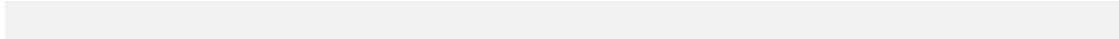
The 41 courses provided under this heading were relatively short (typically between 12 and 15 hours). The average attendance for academic courses was 13 young people per class. Half of the courses were in IT. Tower Hamlets College offered hairdressing and beauty therapy courses, basic car maintenance, computerised accounting, a counselling course and desktop publishing. A 'Careers in Theatre Day' run by Half Moon Young People's Theatre was the best attended day. 'Music Power' attracted many young musicians who were not pupils in the borough.

Implications

A publicity campaign was organised to attract the attention of the target group. From the questionnaires returned at the end of the summer it was found that the most popular means through which people found out about the University were leaflets and posters (22 per cent), teachers (20 per cent) and friends (19 per cent).

It was felt that the Summer University had enabled the borough's resources and professional expertise to be shared. The project provided opportunities for students to explore sensitive issues and this was related to the use of peer education and residential courses. A measure of the scheme's success is that about 60 students gained nationally recognised accreditation. The bridging course for Year 11 pupils was particularly successful: all 94 students who attended this course gave positive feedback.

Most Summer University students opted for an academic course in the morning and a sports or leisure course in the afternoon. This may have implications for the timetabling of other initiatives.



WALTON, M. (1995). 'After-school activities', *Head Teacher's Briefing*, **82**, 2 October, 5-7.

Aim

This article, written by the deputy director of *Education Extra*, describes some of the practical considerations for schools wishing to provide activities after school.

Description

The article begins by outlining the benefits of after school provision for children of all ages and abilities, for teachers and the wider community. However, the author acknowledges that, despite arguments in favour of running after-school activities, many schools choose not to offer them.

The author goes on to consider some of the pressures on schools, and to discuss the financial and practical issues involved. In relation to these pressures, he suggests that after-school provision need not necessarily place greater burdens on teaching staff, because there is no compulsion to take part, teachers do not have to run the provision themselves and teachers who choose to take part are entitled to remuneration.

The article suggests that some headteachers are deterred from offering after-school provision because they believe that it is outside the scope of their LMS funding. However, advice from the Department for Education suggests that this is not the case, and that school governors are free to determine whether such provision may be funded by the school. It is also possible for schools to raise funding from other sources, such as local businesses, charitable trusts and foundations, TECs, and LEAs.

In relation to practical concerns, the article refers to liaison with the caretaker and cleaning staff, transport and insurance. The author acknowledges that there is no single solution, but suggests that there are numerous examples of schools successfully dealing with these issues (for example by restructuring the school day).

WHITE, S. (1998). Hackney Schools Mentoring Programme. London: Hackney Education Business Partnership (mimeographed).

Aims

This report describes a mentoring programme developed in Hackney to help pupils with low self-esteem and low self-confidence. It was designed to increase students' career aspirations and expectations.

Target Population

One special school and all nine mainstream secondary schools in Hackney were involved. Pre-GCSE pupils (Years 10 and 11) were targeted, since they are at a crucial point in their school career. In the first year of the programme 68 students met the 46 mentors, either one to one or in small groups of no more than four students.

Description

The mentoring programme is part of the East London Partnership, Hackney Education Business Partnership and Hackney Education Task Force. Potential mentors had to complete a detailed questionnaire providing a profile of themselves. They were then required to go through a police check as well as an initial training session in which they were matched to a school. The successful mentors were asked to commit themselves to the programme for at least a year.

Mentors were instructed to develop a supportive relationship in which pupils could share their thoughts and talk about their career plans. They showed pupils how to achieve their goals through practical yet manageable steps.

A programme consisting of mentor training and regular support sessions was put in place during the first six months. The remaining six months included two further support sessions dedicated to planning a team-building event.

Mentoring sessions lasting one hour took place every fortnight. Initially the sessions took place at school, then at the mentor's workplace. Where the mentor relationship was on an individual basis, the pairs were encouraged to get to know each other before focusing on target-setting. Leisure activities were encouraged. Where the mentor relationship was in a small group, the sessions were more structured, usually based on a resource pack. This enabled the mentor to strengthen the group so that peer mentoring was also developed.

Implications

The report was written while the programme was in progress. It was considered to be important for each mentor to have the necessary support from their employer. The report recommends that mentors are made aware of the fact that the fortnightly meeting is the minimum time commitment required, so they can ensure that they will be able to give the necessary time before they join the scheme.

YOUNG, S. (1996). 'Cool truants who study at night', *Times Educ. Suppl.*, **4196**, 29 November, 2.

Aim

This article describes the use of Prince's Trust Study Support Centres in Tower Hamlets by truanting pupils.

Target Population

Study Support Centres are targeted at pupils of secondary school age, particularly the most disadvantaged.

Description

This article reports on a presentation made to a conference by a representative from Tower Hamlets Education Business Partnership. The Conference provided an opportunity to share the experiences of those organising study support in different areas of the country.

The Tower Hamlets study support centres were not designed to provide an alternative to mainstream school, but truanting pupils are increasingly using them for that purpose. The centres attract disaffected pupils, many of whom truant from formal lessons because of low-self esteem and under-achievement. The centres are less formal than school classes and allow excluded pupils to take advantage of provision where the emphasis is on 'learning not teaching'.

Implications

The centres can be regarded as successful in terms of attracting disaffected pupils. However, the aim of enhancing and extending formal school provision has been bypassed by the truanting pupils who are taking advantage of the opportunities to learn but are not integrating these into formal school provision. Although their needs are being catered for, the original intention of the centres is being distorted, and this may have implications for other study support schemes.

Section 3

Bibliography of Research Studies

This section includes details and structured reviews of 28 research studies. (Please note that there are more than 28 references because some studies were described in more than one publication.) The section begins with a note on statistical significance and effect size. This is followed by Table 3.1, which lists all 28 studies in alphabetical order of author. Each report is categorised according to the type of study support activity (e.g. curriculum extension or enrichment; summer school; mentoring programme).

The table is followed by individual reviews of each report, which provide information about: the research aims, sample and method; the research results; the implications

identified by the author (e.g. conclusions and recommendations for further development); and reviewer's comments. This last section contains our appraisal of the quality of each piece of work, including the study design, level of detail, appropriateness of the statistical techniques and the degree to which the author's conclusions are supported by the evidence. (We are grateful to our colleagues, Ian Schagen and John Dobby, for their comments on the quality of statistical design and analyses.)

Key to types of activity listed in Table 3.1

brk - breakfast club	out - outward bound
enr - enrichment (e.g. sports and arts)	res - residential
ext - curriculum extension	rsd - restructuring the school day/year
gui - practical guide	stu - study support (general)
lei - leisure activities	sum - summer school/university
men - mentoring	

Note on statistical significance and effect size

In several research studies, comparisons are made between the responses of two groups (for example, comparing the results obtained by students who have taken part in a study support programme with those of students who have not). The responses of the groups are compared using a variety of statistical techniques. These techniques assume that there is no real difference between groups, assess the actual size of the differences, and evaluate whether it is likely that such differences could have occurred by chance.

Three levels of statistical significance are quoted, using the convention ($p <$) followed by: .05, .01, .001. In each case, $p <$ is the abbreviation for 'probability is less than'.

- A significance level of $p < .05$ means that there is less than a one-in-20 chance that this result would occur if there was really no difference between the groups.
- A significance level of $p < .01$ represents a one-in-100 probability that the result would have occurred by chance.
- A significance level of $p < .001$ represents a one-in-1,000 probability that the result would have occurred by chance.

In this report, we ensured that all results described as 'statistically significant' had achieved significance at the level of $p < .05$ or better.

The statistical techniques assume that the respondents are representative of the groups to which they belong. For this reason, where the number of participants is small, care should be taken in the interpretation of results. Conversely, it is more likely that statistically significant results will occur in larger samples: simply because a result is statistically significant does not mean it has *educational* significance.

In some of the studies, researchers have calculated an 'effect size'. This technique is commonly used in meta-analyses, to summarise findings from a number of separate research studies. Although there are several different methods for calculating effect size, a simple definition is: the difference in gain scores (treatment group minus control) divided by the standard deviation of scores in the control group. The magnitude of effect sizes can be used to assess the significance of a finding (Cohen, 1969). This may be defined as follows:

- small effect effect size of less than 0.5;
- moderate effect effect size between 0.5 and 0.8;
- large effect effect size of 0.8 or more.

More recently, Slavin and Fashola (1998) have suggested that an effect size of 0.25 is the minimum level at which a relationship should be considered educationally significant.

Table 3.1 Summary of research studies

Reference	Type	Description
Andrews, 1997	sum	This is an evaluation report of the pilot Summer Literacy Schools, which were established to help pupils in Year 6 who had failed to obtain the national standard in the National Curriculum English assessments. Attendance was voluntary. The centres achieved good rates of attendance and retention. Evidence from 19 centres indicated that the majority of the children improved their attainment in reading and spelling. Qualitative evidence from participating teachers is used to illustrate the immediate effects of the scheme on pupils' attitudes and behaviour.
Barber <i>et al.</i> , 1997	enr, ext,	This study examined the impact of extra-curricular activities on school performance. The researchers compared provision in seven secondary schools which had received an OFSTED citation with that offered by seven similar schools which had received acceptable/good inspection reports. Two thirds of the pupils surveyed held positive attitudes towards out of school hours activities. OFSTED cited schools provided more 'enrichment' activities (e.g. sports and arts) and the level of student participation in enrichment activities was greater than in the non-commended schools.
Brooks <i>et al.</i> , 1997	lei	This research collected data on over 5000 eight-year-olds and considered the relationship between children's leisure activities and their reading attainment. The researchers found a significant relationship between good reading attainment and participation in a range of leisure activities, including 'reading for fun'.

Brown and Steinberg, 1991	stu	This quantitative study focused on 8000 US students attending nine high schools in two areas. The researchers looked at the influence of four 'non-instructional' influences on student achievement. In relation to participation in school-sponsored extra-curricular activities, there was a positive association between participation and positive school outcomes. There were differential relationships associated with the type of activities in which students participated. The authors conclude that extra-curricular activities enhance student achievement, although their influence is relatively modest.
Camp, 1990	stu, lei	This quantitative study of over 7000 US students examined the effects of participation in extra-curricular activities on success in high school and the first year of college. The authors conducted secondary analysis of an existing national dataset of high school students. A statistical model was used to examine possible causal relationships. Results confirmed that student participation in extra-curricular provision had a positive and significant relationship with academic achievement.
Cooper <i>et al.</i> , 1996	sum, rsd	This meta-analysis examined the effects of the summer vacation on pupils' school attainment. The analysis included 13 research studies, all of which were carried out in the USA and most of which concerned primary-age pupils (Grades 1-8). The researchers concluded that the long summer vacation has a detrimental effect on pupils' attainment, amounting to a loss of about a month in grade-level terms. The strongest effects were noted for mathematics and spelling, although there were also detrimental effects on reading. Children from low-income families had greater losses than those from middle-class backgrounds. The authors make recommendations for the types of summer programmes that may be most helpful, and point out that there are implications for the organisation of the school year.

Education Extra, 1998	stu	Factual information about study support provision was gathered in a survey of 62 London primary, secondary and special schools. All of the schools offered some kind of provision, most of which took place after school. Two common difficulties in providing study support are highlighted: teachers' work load; and a lack of funding.
Golden and Sims, 1997	men	This research featured a survey of 72 industrial mentoring schemes in British secondary schools. Typically the schemes targeted students in Years 10 and 11 who were underachieving and perceived to be lacking in confidence. The authors conclude that industrial mentoring is of benefit to students, although scheme coordinators pointed out the difficulty of ascribing changes in student attitudes or achievement to the influence of mentoring.
Hattie <i>et al.</i> , 1997	enr, out	This article reports the results of a meta analysis of 96 studies, examining the effects of outward bound schemes on an array of outcomes such as self concept and leadership. Most of the studies were conducted in the USA and Australia and were targeted at a range of participants (including adults, recovering alcoholics, young offenders college students and secondary school pupils). The authors found that there was a positive effect of outward bound programmes immediately after completion of the course, and that there was evidence of lasting positive effects
Hendry <i>et al.</i> , 1989	lei	This is a large-scale study of young people's sporting participation in Scotland. Over 10,000 young people responded to a questionnaire, and interviews were held with young people aged from nine to 20. Young people viewed sports as providing important experiences and contributing to social skills. Boys participated in sport more often than girls. Young unemployed people were the least likely to have been in a sports team at school or to have played sport for fun.

MacBeath, 1993	ext	This evaluation of a study support scheme focused on supporting pupils attending schools in deprived areas within the Strathclyde region. The researchers visited the 12 (mainly secondary) schools up to ten times, over a period of two years. Positive reactions to study support were expressed from all involved.
McFayden and Hughes, 1996	sum	This report describes a summer school that was set up by parents for children with severe learning difficulties. Each child had an individual programme of therapies and developmental activities alongside structured play. Nine of the parents completed a questionnaire and their comments were positive. It is suggested that the summer school helped children to maintain their level of development, with some children showing signs of progress.
Marsh, 1988, 1992	stu, lei	This research addressed the relationship between US high school students' participation in a range of extra-curricular activities and their academic achievement. A nationally representative database of 4000 students was used to explore this relationship. Participation was found to have a positive, significant relationship with academic achievement. There were different effects according to the type of activity, with involvement in sporting activities strongly related to positive social self-concept. The author suggests that participation leads to increased commitment to school and to school values, and that this has a positive effect on academic achievement.

Mason, 1995a	enr, lei	This report describes the results of a nation-wide survey of children's involvement in sport in England. The survey obtained responses from over 4000 pupils in primary and secondary schools. The survey found that almost all children had participated in at least some sport organised by their school outside lesson time, and almost all said they enjoyed the experience. Children differed greatly in the amount of time they spent on out of school sport. A number of factors were found to influence participation, including children's preferences for other leisure activities.
Mason, 1995b	enr, lei	This is a follow-up study to the one described above. Interviews were held with 20 PE teachers and with 40 children aged between six and 15. Most of the teachers felt sport should be competitive, teaching children to cope with defeat. Both teachers and pupils pointed out that children from low-income families were restricted in their opportunities to take part in sports. It was felt that schools should provide extra-curricular sporting activities, because schools are accessible to all young people.
Miller, 1998	men	This study focused on mentoring schemes in seven English secondary schools. The schemes varied, but all were targeted at students in Year 11. Data were collected from 103 students and 59 business and community mentors. A sample of 90 mentored and 93 non-mentored students took part in a GCSE prediction assessment. The difference between assessment scores and subsequent GCSE performance was used as an indicator of the value added by the mentoring scheme. Results indicated that mentored students performed slightly better at GCSE than non-mentored students in relation to the predicted scores. Students said that mentoring had a positive effect on their motivation and willingness to study.

Myers and MacBeath, 1998	stu, ext	This paper describes the evaluation approach designed to assess the impact of the <i>Prince's Trust</i> study support programme. A longitudinal design has been adopted in which secondary pupils' attainment and attitudes will be tracked over time and related to their participation in study support activities. Over 9000 students in Years 9 and 7 are being tracked in 54 English, Welsh and Scottish schools. A database has been established which holds details of each student's gender, SES and ethnicity. Qualitative methods will be used to complement the quantitative data.
National Mentoring Network, 1996	men	This survey provides some basic information about mentoring schemes involved in the National Mentoring Network. A total of 88 programme providers responded. Results showed that most programmes were based in secondary schools and were directed at students in Years 10 and 11. Common student selection criteria included under-achievement, lack of confidence and a potential to succeed.
O'Brien, 1996	enr	This survey gathered information on the arts participation of over 4000 pupils. The survey took place in 192 English and Welsh schools, and collected information from pupils in Years 7 to 11. Pupils reported relatively low participation in arts activities 'at school but outside lessons', compared with their involvement in arts activities in school lessons and at home. The report concludes that there is potential for much greater use of school facilities to provide arts activities outside school hours.

Pocklington, 1996	ext	<p>This chapter forms part of a book describing the <i>Schools Make A Difference</i> project in Hammersmith and Fulham. Eight secondary schools participated for a two-year period, providing opportunities for flexible learning, revision, homework and some enrichment activities. The evaluation found that student attendance and retention rates were good. Revision centres were particularly popular with students. Teachers felt that students who had participated in the activities exhibited positive changes in behaviour and motivation. There were also positive effects on teacher motivation. The GCSE attainment of all Year 11 students was analysed in relation to student attendance at the Easter revision centres. Attendees achieved higher GCSE scores (mean points scores of attendees were ten points higher than those of non-attendees). Checks on the reading attainment of pupils on entry to secondary to secondary school indicated no difference between the two groups in their initial attainment.</p>
Posner and Vandell, 1994	ext, enr, lei	<p>This US study aimed to establish whether children from low-income families benefited from 'formal' out of school care. A total of 216 elementary school pupils participated. They attended one of four types of after school care. Children who attended formal after-school programmes (which offered both extension and enrichment activities) had higher school grades than did those in two other types of after-school arrangements (informal adult supervision and 'mother care'). There were also some significant relationships between type of care and teachers' ratings of pupil behaviour, favouring the organised programmes. There were slightly different patterns of positive outcomes associated with participation in extension or enrichment activities. The authors consider that after-school programmes are particularly helpful to children from low-income families.</p>

Sainsbury <i>et al.</i> , 1997, 1998	sum	This evaluation report describes the 1997 pilot of the Summer Literacy Schools. The initiative aimed to improve the literacy skills pupils in Year 6 who had failed to obtain the national standard in the National Curriculum English assessments. Attendance was voluntary. The evaluation team collected the children's assessment results in May and administered a similar assessment in September. Comparisons were made between the progress of 925 children who had attended the summer schools and that of over a thousand children who were transferring to the same secondary schools, but had not attended the summer schools. The analysis revealed a general decline in scores from pre- to post-test. There was no statistically significant differences between the experimental and control groups in terms of progress in English. Analysis of pupil responses to an attitude questionnaire revealed that they held positive attitudes to the summer school, their enjoyment of reading improved and they became more confident in their ability to cope with transfer to secondary school.
Smith <i>et al.</i> , 1989	stu	This book describes the results of a longitudinal research project on school effectiveness. The study took place in 20 multi-ethnic secondary schools in four English LEAs. Data were collected on about 3000 students, including self-reported involvement in extra-curricular activities during Years 8 and 9. Results showed that games was the most popular extra-curricular activity. Participation was highest for children from UK/Eire and West Indian backgrounds and lowest among those from South Asian backgrounds (especially Moslem families). Participation was also related to socio-economic status, with children of managerial and professional parents most likely to take part.
Smith and Barker, 1997	stu, lei	These researchers conducted secondary analysis of a survey of kids clubs conducted by <i>Kids Clubs Network</i> . It was estimated that the 3500 English and Welsh kids clubs provide approximately 245000 places for children after school. Although kids clubs operate in different types of premises, over half were held in schools. More rural and regional areas of England and Wales had relatively low levels of provision in relation to the primary-age population.

Tierney <i>et al.</i> , 1995	men	This is the evaluation report of <i>Big Brothers/Big Sisters</i> , a US mentoring programme aimed at young people aged between 10 and 16. The sample consisted of over 959 young people from eight areas who volunteered to take part in the scheme. Most of them were from low-income backgrounds. Mentors were typically graduates in managerial or professional positions. The students were randomly allocated to two groups, one of which took part in mentoring immediately, and the others were put on a waiting list for 18 months. Results of comparisons between the two groups favoured the mentored students. They achieved significantly higher grade-point averages and reported more positive relationships and behaviour than non-mentored students.
Tower Hamlets Study Support Project, 1997	ext	This study considered the effectiveness of a study support initiative in Tower Hamlets secondary schools. An analysis of GCSE results from eight schools with study support centres showed that their results had increased by 30 per cent (compared with a three per cent increase in six non-participating schools). In an analysis of GCSE results from over 700 students, teachers' GCSE predictions were used as a basis for value-added calculations. Compared with non-attendees, a higher proportion of students who had attended an Easter revision programme achieved higher than predicted results. A number of possible alternative explanations are offered for the associations between study support and GCSE performance.

Watts and Hillman, 1997	enr	This is an evaluation of study support offered in one Bristol secondary school. The school offers a range of enrichment opportunities, including arts and sports activities. A questionnaire was administered to over 100 pupils, some pupils were interviewed and GCSE scores were examined. It was found that pupils valued their participation in the activities and felt it had improved their confidence and self-esteem. An analysis of GCSE data found that fewer of the students who were 'not active' (in terms of extra-curricular participation) gained five A-C passes at GCSE.
Woolnough, 1991, 1994	ext	In response to the need to encourage young people to take up careers in science, this research focused on the factors influencing young people to study science or engineering courses in HE. From a survey of 132 schools and colleges, the research found a positive correlation between the provision of extra-curricular science activities and the proportion of students going on to study science and engineering courses in HE. From a survey of 1180 Year 13 students in 15 schools and colleges, it emerged that certain science-related extra-curricular activities (especially visits by scientists, visits to scientific organisations, science work experience and participation in scientific competitions) were considered to be a positive influence towards science, especially for students wishing to study engineering.

Reviews of research studies

ANDREWS, K. (1997). *The Summer Literacy Schools: an Evaluation of the 1997 Pilot Scheme by Education Extra*. London: DFEE.

See also: Sainsbury *et al.* (1997).

Aims, sample and method

This is an evaluation report of the pilot Summer Literacy Schools which were set up in 1997 as the result of a Government initiative. The initiative aimed to improve the literacy skills of pupils in Year 6 (11-year-olds) who had not met the national standard in reading.

Schools wishing to participate in the pilot were invited to submit plans, and grants were awarded accordingly. Fifty Summer Literacy Centres were established in secondary schools located throughout England. Each provided 50 hours of literacy tuition during the summer holiday period. The programme offered in each centre was unique, and a wide range of approaches was encouraged for this pilot phase. Certain centres, for example, placed an emphasis on pupil attendance and punctuality, whereas others focused upon areas such as handwriting, listening, speaking, using the library and developing pupils' confidence in using technology.

The initiative was targeted at pupils with poor literacy skills who were about to transfer from primary to secondary school. It was intended that the centres would improve children's literacy skills and enhance their attitudes towards reading. Pupils who had not achieved level 4 in their National Curriculum English assessments, conducted in May, were offered the opportunity of attending a centre during the summer holiday period. Attendance was voluntary.

The pilot was administered by the educational charity *Education Extra*, who were also responsible for compiling this report. Each scheme was required to return a detailed questionnaire to *Education Extra*. The information was mainly qualitative in nature, although some of the respondents submitted assessment results (e.g. using standardised reading and spelling tests). The report illustrates examples of good practice as well as presenting the opinions of participating staff and pupils.

Results

Education Extra analysed the effects of the Summer Literacy Schools on pupils by using four main indicators:

- retention and attendance
- learning gains;
- attitudes towards reading; and
- confidence and commitment to learning.

Retention and attendance

Centres were asked to keep records of retention and attendance. The median retention rate for all schemes was 95 per cent. Ten schools achieved an 100 per cent retention and the lowest retention for any one scheme was 65 per cent. Median attendance was 93 per cent, and all schemes achieved an attendance rate of over 60 per cent.

Learning gains

Although schools were not required to use their own tests to measure pupils' progress during the scheme, 19 centres submitted the results of assessments in reading, and seven submitted results for spelling. (It is not clear when these assessments took place.) In 18 centres, the majority of children's reading ages improved during the course of the scheme. The results of the spelling tests indicated that over three-quarters of children in each of the centres had improved their spelling age.

Attitudes towards reading

Schools did not use any measures of changes in pupils' attitudes to reading. However, the report includes anecdotal evidence from teachers of pupils' improved attitudes towards reading (e.g. improved motivation towards reading, more discrimination in choosing reading material, greater amount of time spent reading for pleasure).

Confidence and commitment to learning

From the responses to the questionnaire, it was clear that teachers considered an increased confidence in learning to be a major benefit of the Summer Literacy Schools. This was indicated by teachers' accounts of: pupils' increased confidence in starting at their new school; positive relationships between pupils and adults; increased social and team-work skills; and increases in specific skills, such as IT.

Implications

The results of this evaluation are viewed very positively by the report's authors. While the positive nature of the findings from this report may seem at odds with the rather disappointing findings from the NFER evaluation (Sainsbury *et al.*, 1997), the author does not view the two sets of findings as contradictory. It is suggested that a subsequent decline in performance over the summer holiday period may have affected the NFER findings, and that improved attitudes towards reading may lead to greater academic gains in the future for the pupils who attended the Summer Literacy Schools.

The report identifies a number of key factors in good practice arising from the experiences of teachers and advisers.

- Successful elements of planning included: effective liaison with primary schools; collection of diagnostic information on pupils; and effective liaison with parents.
- Good organisation and delivery was characterised by: clear aims and objectives; creating a climate of learning and fun; finding the right form for the project; and recruiting the right staff.
- Key factors in teaching and learning included: a clear scheme of work; a clear focus on literacy; good targeting; consistent monitoring and evaluation; good use of incentives and of mentoring.
- Successful schemes managed to: involve parents and governors; mobilise expertise and support from the local community; and enrich the schemes through resource partnerships (e.g. with TECs, public libraries, commercial sponsors).

It is suggested that, in future, more time should be devoted to developing closer partnerships with primary schools to ensure careful selection of pupils and a better match between the needs of the pupils and the teaching provided in the Summer Literacy Schools. The report's authors also call for more research into the causes of the 'summer learning gap' in order to identify ways in which it can be reduced.

Reviewer's comments

This report draws on a number of sources of information, much of it qualitative in nature. It is clear that the teachers participating in the initiative found it a positive and worthwhile experience. There is evidence that the schemes retained pupils (who attended on a voluntary basis) and data provided by some of the centres documented positive changes in pupils' reading and spelling ages. Qualitative evidence from teachers is used to illustrate the immediate benefits of the Summer Literacy Schools on pupils' attitudes and behaviour. The section on good practice should prove useful for those involved in organising similar schemes in future.

BARBER, M., MYERS, K., DENNING, T., GRAHAM, J. and JOHNSON, M. (1997). *School Performance and Extra-curricular Provision* (Improving Schools Series). London: DFEE.

Aims, sample and method

This study aimed to advance understanding of extra-curricular provision and its impact on school performance. The research examined extra-curricular activities provided by a sample of 14 secondary schools. Half of these schools had been identified as worthy of special recognition in the annual report by Her Majesty's Chief Inspector of Schools, published in January 1996. These are referred to as 'OFSTED cited' (OC) schools. The remaining seven schools had acceptable or good reports and were comparable to the OC schools in terms of geographical and socio-economic characteristics. These are referred to as the nominated sample (NS) schools.

A questionnaire was distributed to headteachers and pupils seeking information about extra-curricular provision in their schools. (There is no information on the number of responses.) Comparisons were made between the OC and NS schools, and a limited number of comparisons were made with responses of pupils in the Keele National Database (comprising 35,000 pupils in several hundred schools).

Results

Two-thirds of the pupils surveyed held positive attitudes towards extra-curricular activities. Headteachers indicated support for this type of activity. From the pupil responses, it emerged that participation in extra-curricular activities was greater in OC schools (around 74 per cent) than in the NS schools (around 59 per cent). The researchers went on to consider two main types of extra-curricular activity: curriculum enrichment, and curriculum extension. These are described below.

Curriculum enrichment

Activities included in this category are those which might be considered leisure activities, including sport, drama, music, chess, community work and educational visits. These activities tended to take place after school and during school holidays.

The range and extent of enrichment provision (as reported by pupils) was greater in OC than in NS schools. A higher proportion of pupils from OC schools said they participated in enrichment activities, and the difference was especially noticeable for the following activities: individual and group music-making; music/drama productions; team and individual sports; and involvement in clubs/societies.

The questionnaires asked pupils to indicate which of eleven potential benefits they derived from participation in enrichment activities. Over 50 per cent of pupils selected four items: the activities were enjoyable, helped pupils to make friends, to gain confidence and to learn more.

Curriculum extension

This category comprised curriculum-related activities, such as homework clubs, Records of Achievement and revision classes. The activities took place before or after school, in breaks or during school holidays.

According to the pupils, there was more provision for extension activities in NS than OC schools, particularly for English, mathematics and information technology. Pupils in Years 10 and 11 were the most likely to take part in extension activities. An analysis of their responses revealed that examination revision and coursework were the activities in which these pupils were most likely to participate.

From the list of 11 potential benefits, over 50 per cent of pupils identified the main benefits of extension activities as : improved examination prospects; the ability to learn more; gains in confidence and improved school performance.

Implications

Contrary to expectations that extra-curricular activities would be perceived as not important, the survey showed that the schools offered a wide range of extra-curricular activities. The findings indicate that there was strong pupil support for, and involvement in, study support. Head teachers were committed to such provision and perceived it to be part of their mission to help pupils to develop academically, socially and personally. Heads in OC schools wanted to see provision improved and extended, and may take commitment to such provision into account when appointing staff.

The authors consider the results of comparisons between OC and NS schools to be suggestive of a correlation between the provision of curriculum enrichment activities and the academic performance of a school. The important element may be the enjoyment and motivation resulting from involvement in enrichment activities.

The report offers a 'Good Practice Guide' that could be employed by schools to ensure that effective and worthwhile provision is offered to pupils. The key features of this are:

- leadership of the headteacher and the involvement of the majority of staff;
- a coherent, whole school policy;
- the appointment of a senior member of staff with responsibility for implementing the policy;
- monitoring of pupils' involvement and successes;
- provision of a wide range of activities;
- structuring of the school day to facilitate study support activities;
- good communication with parents.

Reviewer's comments

This is a small scale study focusing on activities in 14 English schools. It provides a 'Good Practice Guide' that echoes recommendations made by a number of similar surveys.

However, it is not clear from the report how many pupils responded to the questionnaire, what proportion of the total number of pupils responded, and whether the responses were equally distributed among schools and year-groups.

Finally, although there is an apparent link between 'good' schools and the provision of particular types of study support, this cannot necessarily be interpreted as evidence of a causal relationship.

BROOKS, G., SCHAGEN, I. and NASTAT, P. (1997). *Trends in Reading at Eight: a Report on the 1995 Survey of Reading Attainment in Year 3 in England and Wales*. Slough: NFER.

Aims, sample and method

This research study focused on the relationship between eight-year-olds' attitudes to reading and their reading attainment. One part of the study considered the influence on attainment of children's participation in leisure activities outside the school day.

The sample comprised 5299 Year 3 pupils who completed a questionnaire and took a standardised reading test in 1995. Among the questions, children were asked to indicate how often they participated in each of six leisure activities outside school: most days, some days or never. The activities were: reading for fun; watching television and videos; playing with friends; playing sports; doing jobs at home; and playing computer games.

In order to test the hypothesis that a low frequency in leisure reading would be associated with low achievement in reading, a statistical analysis was conducted. Children were grouped in relation to the frequency with which they took part in each activity. The average reading test scores of each group were then compared.

Results

About a fifth of children said they never read for fun outside school hours. There were a number of statistically significant relationships between children's participation in leisure activities and their reading test scores.

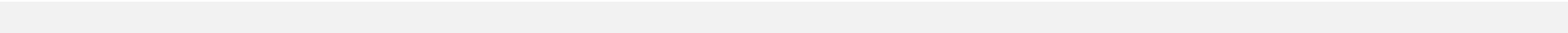
For all six items, pupils who participated in the six leisure activities 'some days' had higher average test scores than those who reported that they never participated. For all items except 'read books for fun', pupils who responded 'some days' had higher average test scores than those who responded 'most days'. Pupils who spent the largest amounts of leisure time on pursuits other than reading tended to achieve lower test scores. The average test score for those who read for fun on 'most days' were among the highest. Conversely, those who 'never' for read for fun had significantly lower average scores than the other two groups ($p < .05$).

Implications

The authors conclude that their study indicates that pupils who have more varied lives out of school tend to achieve higher test scores. It also shows that low frequency of leisure reading was associated with low reading attainment. The authors suggest that the problems of children who have problems with reading or who read infrequently for pleasure should be tackled early in their school lives.

Reviewer's comments

This research reveals a relationship between leisure activities and reading achievement among eight-year-olds. The association between low reading attainment and lack of reading for pleasure is not unexpected: poor readers are unlikely to wish to read 'for pleasure' in their leisure time, and lack of reading practice is likely to influence reading test scores. The association between reading attainment and participation in a variety of activities (but to a moderate extent) is interesting. It is possible that the results are also related to background factors, such as gender and socio-economic status, but these relationships are not explored in this part of the report.



BROWN, B.B. and STEINBERG, L. (1991). *Noninstructional Influences on Adolescent Engagement and Achievement. Final Report: Project 2* (ED340641). Madison, WI: University of Wisconsin-Madison, Wisconsin Center for Education Research, National Center on Effective Secondary Schools.

Aims, sample and method

This report summarises a US study of ‘non-instructional’ influences on students’ academic attainment. The research focused on four areas that may influence high –school students’ engagement and achievement patterns. These were: family; peers; part-time employment; and school sponsored extra-curricular activities. The intention of the research was to focus on processes by which student academic engagement and school performance are increased or diminished. The interaction of influences was explored to assess the effect of a combination of variables on student attainment.

A questionnaire was administered to eight thousand students in nine high schools. The schools varied considerably in size, and the ethnic and socio-economic composition of the student body. Six of the schools were located in San Francisco and three in Wisconsin. The questionnaires were administered in two parts, in the autumn and spring terms. Refusal rates were low (five per cent), but sample attrition was disproportionately high among black and Hispanic students and among underachievers.

In two-thirds of schools, the questionnaires were supplemented by interviews with a selected proportion of students and parents. The findings presented in this report are based on questionnaire and interview data collected during the first year of the study. Although the sample was not nationally representative of all high-school students, the authors suggest that their sample was comparable with those of previous studies investigating similar variables.

Results

Rather than presenting findings about influences in each non-instructional area separately, the four areas are collapsed into pairs and an examination of the comparative influence of the areas that comprise each pair is undertaken. For the purposes of the analysis, extra-curricular activity was paired with part-time work. (The report gives little detail of the approach to analysis or the outcomes: findings are presented in purely descriptive terms.)

The authors state that over two-thirds of the students were involved in at least one school-sponsored activity, with an average time-commitment of ten hours or less per week. Extra-curricular participation was found to be ‘associated’ with positive school outcomes, even after controlling

for background differences (e.g. academic ability and SES) between participants and non-participants. The results indicated that the more extensive a student's participation, in terms of time commitment, number or range of activities, the more time students devoted to homework and the higher the student's grade-point average (GPA).

However, the degree of academic advantage that extra curricular participants enjoyed depended upon the type of activity in which they were involved. Those who concentrated on 'glory' sports (such as football, basketball, baseball) or performing arts activities (such as drama, dance) were found to have significantly poorer academic records than those who concentrated on leadership activities, clubs and interest groups. This was due, in part, to differences in the perceived 'academic climate' of the activities (i.e. the support for academic achievement among fellow participants). The extent to which coaches and advisors supported achievement was not a significant factor in participants' achievement levels.

Implications

The authors conclude that extra-curricular activities were found to enhance school performance, but their influence on academic achievement was relatively modest.

Schools, it is suggested, could capitalise on student involvement in extra-curricular activities by enhancing the academic climate of such activities. Sports coaches and arts teachers should be encouraged to reduce their demands for practice time and performance expectations, to relieve pressures on students that could interfere with school work

The authors suggest that in future, research should be more narrowly focused on 'process variables' (for example, the amount of time spent in extra-curricular activities or the extent to which students feel that these activities distract them from school work).

Reviewer's comments

It is difficult to comment on the quality of this research because so little detail is given of the approach to analysis or of the strength of findings. There are references to 'associations' and 'significant' relationships, but no statistics are provided. The authors state that involvement in certain types of activity (particularly sports and performing arts) was detrimental to students' academic performance. Although the authors claim to have controlled for differences in academic ability, a possible alternative explanation for this relationship is that less academically able students chose to participate in certain types of activity.

CAMP, W. G. (1990). 'Participation in student activities and achievement: a covariance structural analysis', *Journal of Educational Research*, **83**, 5, 272-8.

See also: Marsh (1988, 1992).

Aims, sample and method

This research examined the relationship between U.S. high school students' participation in extra-curricular activities and their academic achievement.

The article begins with a summary of findings from research in this area. Most previous research has concluded that there is a positive relationship between extra-curricular activities and academic achievement. Nevertheless, it has been suggested that student involvement in such activities may be harmful to achievement, because such involvement means that students have less time to study. (The author cites cases of students being barred from participating in extra-curricular activities at high school because they have not achieved sufficiently good grades.)

The research used an existing dataset to examine the effects of participation in student activities on overall student achievement during the last two years of high school. The 'High School and Beyond' study collected data from a national, random sample of all U.S. public and private high school students entering their sophomore year in 1980. The initial sample comprised over 30,000 students. A subsample from the same cohort of students was followed up in 1982, on completion of high school. The sample used in this research consisted of 7,668 students with a full set of data for both years. The author presents information to show that this subsample was representative of the initial sample of students.

On the basis of the findings of the literature review, the author constructed a statistical model proposing causal relationships between participation in extra-curricular activities, academic achievement and other factors. Among the variables entered into the model were: gender and family background (parents' educational level and family income). Students were asked to state the amount of time they spent on a variety of activities outside school, including time spent in paid employment, time spent viewing television and time spent on homework. Student involvement in extra-curricular activities was assessed by asking students to indicate the extent of their participation in a number of sports, clubs and other extra-curricular activities on a three point scale: non-participation; limited participation; or participation in a leadership capacity. There were two measures of academic attainment: academic ability (used as an input measure) and academic achievement (the outcome measure). Academic ability was defined in terms of the students' scores in standardised tests of mathematics, reading and vocabulary

administered at the beginning of their sophomore year (1980). The measure of academic achievement was the students' grade point averages throughout the two years in high school.

For the purposes of the model, the author assumed that gender and family background influenced the academic ability of the student. Academic ability was assumed to influence time spent on a range of out of school activities (studying, employment, TV viewing and extra-curricular activities). Each of these activities was assumed to have an effect on academic achievement. Path analysis was used to consider the strength of the relationships assumed in the model.

Results

Student participation in extra-curricular provision was found to have a significant, positive relationship with academic achievement. There was a relatively large effect: for example, the effect of level of participation in extra-curricular activities was found to be twice as great as the effect of study habits (i.e. the amount of time students time spent studying). Girls participated in extra-curricular activities to a significantly greater extent than boys.

Implications

The author concludes that participation in extra-curricular activities is beneficial to students' academic achievement. While it is possible that students achieving poor grades withdrew from participation in such activities, the author does not consider this to be a likely cause of the positive relationship found between participation and achievement.

Reviewer's comments

This is an interesting attempt to model relationships between variables, using a large sample of students. The author drew on previous research into the effect of students' participation in extra-curricular activities, reflecting both positive and negative viewpoints. The inclusion of variables such as family background, gender, prior attainment, and competing uses of non-school time enabled the research to explore the influence of a number of factors on academic achievement. The results suggest that extra-curricular participation does not detract from achievement. (The finding that participation in extra-curricular activities had a stronger relationship with achievement than amount of time spent studying is surprising.)

The validity of path analysis is dependent on the assumptions inherent in the model. In this case, the relationships assumed in the model appear to be logical. However, as the author acknowledges, academic achievement may have influenced the extent of participation in extra-curricular

activities. It is possible that other factors (such as an extrovert or sociable personality) underlie both participation in extra-curricular participation and academic achievement. It is also conceivable that high schools with high-achieving students offered more extra-curricular activities than others. These possibilities were not explored in the model.

COOPER, H., NYE, B., CHARLTON, K., LINDSAY, J. and GREATHOUSE, S. (1996). 'The effects of summer vacation on achievement test scores: a narrative and meta-analytic review', *Review of Educational Research*, **66**, 3, 227-68.

Aim, sample and method

This US study used narrative review and meta-analytic techniques to assess the evidence for a decline in pupils' test scores over the summer holiday period.

The researchers carried out database searches, using ERIC and PsycLIT. Keyword searches included the terms: 'summer loss', 'summer vacation' and 'summer school'. The researchers examined the reference sections of recent reports and contacted other researchers working in the field. Thirty-nine reports of empirical studies were identified. The researchers decided to limit their analysis to research published from 1975 onwards, leaving 13 relevant studies remaining for analysis (all of which were carried out in the USA). The meta-analysis included data from 66 samples, 28 of which were described as from low-income backgrounds. A total of 47,994 students were involved, 38,384 of whom participated in one large-scale research study, the Sustaining Effects Study (SES). The SES followed the progress of a sample of elementary students for a period of three years. Overall, the samples included children in Grades 1-8. The studies commonly included assessments of reading, spelling and mathematics.

The researchers carried out a number of statistical analyses to calculate the effects of the summer vacation on children's school attainment. They calculated effect sizes using both unweighted and weighted procedures. The weighted procedures took the sample size into account.

Results

The review included a range of studies involving a wide variety of pupil groups, instruments and times of testing. These studies produced a range of different results. In particular, the largest study (SES) showed either smaller losses than the other studies or even slight gains over the holiday period.

The unweighted analysis found that the average student's scores in the autumn were one tenth of a standard deviation less than those obtained in the spring (equivalent to the loss of about one month).

The strongest negative effects were found for mathematics (particularly computation) and spelling, although there were also negative effects for reading. Students from middle-class backgrounds appeared to gain in reading over the summer vacation, whereas the reading scores of lower-

class students showed losses. Although the students' race and gender did not appear to influence the effects of the summer break on attainment, there was evidence of an increasingly negative effect of summer vacation with increased grade level (i.e. the older the students, the greater the slippage in scores following the vacation).

Implications

The authors suggest that the summer vacation has a negative effect on students' attainment. At best, students appear to make no progress over the summer, and at worst they appear to lose about a month in grade-level terms. Because the interval between tests commonly included some term time, the authors suggest that the real slippage in scores may in fact be worse than these findings suggest. It is argued that the results from the SES study are not a valid measure of summer vacation effects, because the period between pre- and post-testing included eight weeks of term-time instruction.

The authors discuss the apparently greater negative effects of the vacation on mathematics and spelling than on reading, and point out that whereas reading skills are often practised at home, mathematics learning and spelling is more usually confined to school. They also speculate that curriculum areas requiring 'factual and procedural learning' (such as mathematical computation and spelling) may be more prone to decay than are areas of conceptual understanding (such as reading). It is suggested that the differential reading results for children from middle- and working-class backgrounds may be related to the greater opportunities for children from middle-class backgrounds to engage in reading and language learning opportunities during the summer break.

The authors also discuss the greater reduction in scores experienced by older children, suggesting that this may be an example of 'floor effects' in the assessments (i.e. that older children's scores are able to vary from the grade average to a greater extent than are younger children's scores).

The article concludes by pointing out the implications of the study for the organisation of the school year. The authors suggest that summer enrichment and remedial programmes aimed at all children should focus on mathematics, whereas children from lower-income families may benefit from summer programmes aimed at supporting reading.

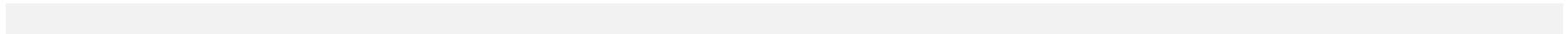
Directions for further research arising from this review include the following:

- more research should be conducted on the effects of the summer vacation on attainment among younger (early years) and older (high school) students;
- studies should look for differential effects among high- and low-income families, and should gather information about how children spend their holiday time;
- researchers should vary test dates to reflect more accurately the ‘pure’ effects of the summer vacation;
- in order to discover whether the vacation affects some kinds of learning more than others, more specific information should be recorded in relation to children’s attainment on sub-tests;
- researchers should attempt to discover how much time can pass between lessons and tests before there is a negative effect on assessment scores.

Reviewer’s comments

This is an interesting review, presenting evidence of a fall in attainment during the summer vacation. There are implications for the organisation of the school year, and for the type of summer educational programmes that may be helpful in combating this decline. The finding that pupils from lower-class backgrounds experience a greater drop in reading scores than children from middle-class backgrounds may indicate a source of educational inequality, suggesting that attention should be targeted on sustaining reading skills among children from low-income families during the summer.

It should be noted that the analysis of specific effects (e.g. the differential effects noted for specific subject areas) could be contaminated by some of the other factors which appeared to influence student outcomes (e.g. the grade level or parental income of the students involved in particular studies).



EDUCATION EXTRA (1998). *Capital Gains: the Provision of After School Activities in London Schools*. London: DFEE.

Aims, sample and method

The aim of this research was to provide information on study support. Due to the lack of factual information collected about provision, and few recent tests of opinion, Education Extra sought to establish what schools were currently providing, the factors that prevented improvement, and where support and guidance could be offered.

The research focused on the provision of study support in London. The main source of information consisted of a questionnaire survey and follow-up interviews. A 'balanced' sample of schools was selected, including primary, secondary and special schools. Of the 157 questionnaires distributed, only 62 (39 per cent) were returned. The achieved sample comprised 30 primary schools, 28 comprehensive secondary schools and four special schools. The schools were located in 25 London boroughs.

The questionnaires were completed by teachers, and sought to ascertain factual information about provision, such as: present practice; problems; changing patterns of provision; suggestions of good practice; and the impact of financial awards and of Ofsted inspections.

Following initial analysis, a sample of eight secondary schools was selected for follow-up interviews. The teachers interviewed were from schools in different London boroughs. The interviews focused on teachers' interest in, and commitment to study support.

In addition to the survey, the report drew on the Education Extra database, which held information on 89 schools providing study support in 29 London boroughs. Information from the database was included in some of the analyses, although it is not clear which analyses contained information from this source.

Results

The main findings of this research are outlined below.

- All of the schools in the sample offered some kind of 'enrichment provision'. Most of this took place after school, but over half of the schools offered lunchtime activities.
- Over a third of schools had activities at weekends and during school holidays, and about a fifth held activities in the mornings, before school.

- The majority of activities tended to take place after school in all sectors. Secondary schools, however, offered more lunchtime provision than primary schools.
- Teachers reported that provision for study support had grown compared with the level of general provision. This was true of all schools in all three sectors.
- A large proportion of teachers found that parents were understanding and supportive of study support.
- There were two major problems experienced by schools providing study support: teachers' work overload and a lack of funding. Sources of funding were generally considered to be 'inadequate and infrequent'.
- A wide range of activities was offered by the schools. As might be expected, secondary schools provided a greater range of activities than primary or special schools. Activities included: curriculum extension; enrichment in specific subject areas; personal interests/hobbies (sports, music, drama, art, dance, IT); and general study support (homework clubs). Sports activities were particularly well provided for in all sectors.
- The activities were run by teachers on a voluntary basis. The majority of responding teachers were keen to continue providing such activities, but the burden of increased workload limited their ability to do so. Parental involvement was evident in primary schools but only in a minority of secondary schools in the sample. Despite the fact that all of the schools provided study support programmes, funding was deemed to be highly problematic and posed the major obstacle to extended and extensive provision.

Implications

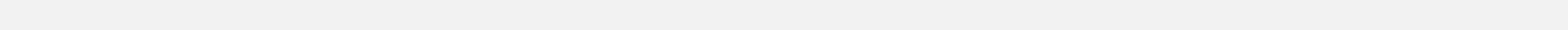
The authors consider their results indicate strong support from responding schools for the provision of study support, and argue that this provision is valuable to children in both educational and personal terms. In order to take such initiatives forward, the problems highlighted by the research need to be addressed.

The report ends with a suggested development strategy.

- A 'Good Practice Guide' should be devised. This would include advice for teachers, and a framework for auditing and evaluating provision.
- Training and guidance should be offered to those who run study support activities.
- Long-term funding, targeted specifically at the schemes, should be secured.

Reviewer's Comments

This is a useful source of information on study support in London schools. Nevertheless, the somewhat disappointing survey response and the addition of information from the Education Extra database to the survey data, may limit the generalisability of the results. It is likely that the findings over-represent schools with a high level of existing provision, and this should be borne in mind when considering the results.



GOLDEN, S. and SIMS, D. (1997). *Review of Industrial Mentoring in Schools*. Slough: NFER.

Aims, sample and method

This study documented the experiences of coordinators and others involved in industrial mentoring schemes in British secondary schools. The project had three main aims: to identify the main models of school-industry mentoring; to ascertain the perceived benefits and disadvantages for schools, students and employers; and to identify examples of good practice in this type of mentoring.

The researchers used the National Mentoring Network Directory to identify schemes placing adults from industry and commerce in schools with students aged between 11 and 16. All the 94 identified scheme coordinators were contacted by telephone or pro-forma. Four schools were selected for case study visits. Semi-structured interviews were held with students, teachers and mentors. Information was collected from 72 mentoring schemes in England, Scotland and Wales (a response rate of 77 per cent).

Results

Nearly 17,000 students, 4,500 mentors 500 schools and 2,000 companies were involved in the 72 schemes surveyed. Mentoring schemes were commonly supported by public funds, through such agencies as TECs, the Single Regeneration Budget and Education Business Partnerships. The majority of schemes offered individual mentoring, a minority offered group mentoring and nearly a third offered both types. Typically, schemes targeted students in Years 10 and 11 who were considered to be underachievers, lacking in confidence and had the potential to achieve.

From the interviews with 26 coordinators, it emerged that the schemes aimed to help young people reach their full potential and to broaden their horizons for the future. Some coordinators mentioned other aims, such as raising students' achievement, developing social skills and raising self-esteem.

Coordinators considered that students benefited from having someone to talk to, other than a teacher or family member. Students were also considered to benefit in terms of self-confidence and self-esteem. Of the 14 students interviewed, all but one said that mentoring had had a positive impact on their school work. They considered themselves to be more organised and punctual, calmer, more inclined to work in class and more confident as a result of the support offered by their mentors. In terms of the benefits to mentors, scheme coordinators felt mentors had learned more about the educational system, gained an enhanced understanding of young people, and improved their communication and interpersonal skills. There were also perceived to be benefits in terms of the mentors' personal development and satisfaction at giving something to the local community.

Although most of the coordinators evaluated the progress and outcomes of the schemes using a variety of approaches, some evaluation difficulties emerged. Coordinators found it difficult to attribute any changes in student behaviour or performance directly to the impact of mentoring. It was also suggested that some of the effects of mentoring on students' personal development were intangible and therefore difficult to measure.

Implications

The authors conclude: 'The evidence collected by this research indicated that the strengths which lie at the core of the mentoring process far outweigh any limitations' (Golden and Sims, 1997, p. 25).

From the research the authors identified some common characteristics of successful schemes. These are as outlined below.

- The scheme should identify and define objectives which are negotiated with key parties at the outset.
- Training should be offered to the mentors which does not demand too much of their time.
- The scheme is more likely to be successful if those running it pay attention to monitoring, evaluation and review of the provision.
- All parties need support and reassurance when involved in a mentoring scheme. Mentors can be supported by effective training and collaboration with existing mentors: this would allow experiences to be shared and practice exchanged.

The authors suggest that further research is needed to assess the long-term effectiveness of mentoring on young people's personal, educational and occupational achievements.

Reviewer's comments

A useful addition to the research literature on industrial mentoring schemes, dealing largely with the perceptions of scheme coordinators. The research highlighted the difficulty of ascribing changes in student attitudes or school achievement to the effects of the scheme.

HATTIE, J., MARSH, H.W., NEILL, J.T. and RICHARDS, G.E. (1997). 'Adventure education and outward bound: out-of-class experiences that make a lasting difference', *Review of Educational Research*, **67**, 1, 43-87.

Aim, sample and method

This meta analysis synthesised the results from an international selection of 96 research studies of outward bound courses. The researchers set out to assess the claim that physical activities can provide an effective medium for developing social and personal skills among young people and adults.

In order to identify relevant studies, the researchers conducted searches of databases (such as PsycLIT, Dissertations Abstracts International and ERIC), the Internet, secondary sources and library holdings at the Outward Bound Australian National School. The article does not state how many studies were located from these sources.

The researchers differentiated between two types of outward bound programmes: outdoor education programmes based in schools, and more challenging outward bound programmes. They decided to exclude school-based outdoor education programmes from the analysis because these were usually shorter in duration and provided less challenging experiences than did true outward bound courses.

The authors used a set of pre-determined quality criteria to decide whether a study should be included in their analysis. These included such aspects as: sample size; study design; description of methodology; and quality of research instruments. The researchers rated the quality of each study on a three-point scale. Studies judged to be of very low quality (nine in all) were omitted.

The meta analysis included 96 studies, many of which were conducted in the USA and Australia. The studies were published between 1968 and 1994. They evaluated outward bound programmes of varying length and targeted at different age-groups. The courses were targeted at a wide range of different participants, including: business people; college students; school students; recovering alcoholics; and young offenders. The programmes lasted between 1 and 120 days, with a mean of 24 days' duration. In total, there were 12,057 participants in the studies. Although there was a wide age range (from 11 to 42 years), three-quarters of the courses were for adults/university students. The majority (72 per cent) of the of participants were male.

The authors identified 151 unique samples within the 96 studies examined. In total, 1,728 effect sizes were calculated. The researchers began by calculating overall effect sizes for all outcome measures, and went on to calculate effect sizes for six different dimensions (i.e. types of outcomes), as outlined below.

- Leadership (eight different elements, including decision-making and leadership-teamwork).
- Self-concept (11 elements including independence, assessment of one's own physical ability, self-understanding).
- Academic outcomes (two elements, comprising 'direct' academic measures, such as mathematics scores, and 'general' academic measures, such as problem-solving).
- Personality (nine elements, including assertiveness, reduction in aggression, and measures of masculinity and femininity).
- Interpersonal (six elements, including behaviour, cooperation, and recidivism rates for offenders).
- Adventurousome (four elements: challenge, flexibility, environmental awareness and physical fitness).

Results

The first set of analyses report the findings from all measures taken together (i.e. including all six dimensions). The overall immediate effect size from the outward bound programmes was .34.

The overall effects of the programmes were greater for adults/university students (0.38) than for young people of school age (0.21). As expected, longer programmes (i.e. those lasting more than 20 days) had larger effects, although this was only the case for adult participants. The researchers considered the effect of different types of programme, and divided the programmes into two groups (Australian Outward Bound and other type of programme). Effect sizes reported for Australian Outward Bound Programmes were 'substantially greater' than those for other programmes.

A number of the studies had collected follow-up data some time after the programme had ended, and the researchers were able to include 347 calculations based on follow-up data. It was expected that these follow up scores might show a decrease or, at best a maintenance in effect after the immediate 'euphoria' of the course had worn off. Surprisingly, although there were marked variations between studies, the mean effect size at follow-up (five months later, on average) was found to be .17 higher than the effect immediately following the programme, indicating a continuing and additional effect of the programmes over time. However, follow-up effects were found to differ according to the age of the participants, with courses for adults showing greater overall follow-up effects than those for school students (the follow up effect for school-age students was .07 greater than the immediate effect).

The researchers reported the following findings for the six different dimensions, based on differences between treatment and control groups on pre-tests and post-tests administered immediately after the end of the programme. (Please note that some of the effect sizes reported for individual elements within the six dimensions are based on a very small number of calculations.)

1. Leadership

The development of leadership skills was a common aim of the outward bound programmes. The meta analysis included 222 calculations for this dimension, and found an average effect size of .38. Largest effects were identified for decision-making, conscientiousness, organisational ability, time management, and leadership-teamwork (all these elements had effect sizes of .42 or more)

2. Self concept

Self-concept was one of the major outcomes investigated in the studies, enabling the researchers to calculate 271 effects. The overall effect size was .28, with the largest effect reported on measures of 'independence' (.47). Physical appearance, confidence, self efficacy and self understanding all achieved effect sizes of .31 or more.

3. Academic

A minority of adventure courses had the specific aim of producing gains in learning, and the researchers calculated 30 effect sizes for this dimension, showing an average gain of .46.

4. Personality

There were 235 calculations in relation to aspects of personality. The average effect size for this dimension was .37, with particularly high effects on emotional stability (.49) and assertiveness (.42).

5. Interpersonal

The meta analysis included 176 calculations for this dimension. The overall effect size was .32, with particularly large positive effects on rates of recidivism, social competence, behaviour, and cooperation (all .34 or more).

6. Adventuresome

As the authors point out, this dimension is what distinguishes outward bound programmes from other educational initiatives. There were 69 calculations, yielding an average effect size of .38. Effects on degree of challenge and flexibility were found to be high (0.39 and 0.42, respectively).

Implications

The authors compare the effect sizes obtained in this study with their own previous work calculating effect sizes for other educational initiatives. They conclude that an overall effect size of .34 is equivalent to the effects of 'classroom' initiatives, whereas the effect size for self-esteem (.26) is higher than that obtained in meta analyses of other educational programmes. However, there were considerable variations in the results from different programmes, indicating that not all outward bound courses are equally effective.

The authors consider evidence of the longer-term impact of outward bound courses to be 'the most impressive' finding, and suggest that a combined effect size of .51 (i.e. longer term effects of .17 added to the effect size of .34 immediately following the programme) is 'unique in the educational literature'. They suggest that outward bound programmes have a major, lasting effect on the lives of participants.

The authors point out that there was fairly consistent evidence of positive programme effects on all six dimensions studied. They suggest that the main effect of outward bound programmes is demonstrated in relation to gains in self-control.

Recommendations for future evaluations of outward bound and adventure programs include the following points.

- The use of dependable measurements (i.e. high quality assessments). The tests used must be related to the desired outcomes, however researchers should include scales that are unrelated to the expected outcome, to act as a control.
- Reasonable samples sizes are needed.
- There must be clear documentation relating to the appropriate background variables, such as details about the participants.
- Researchers should look for instructor effects.
- Researchers should investigate interactions between major variables.

- The nature of the programme should be well documented.
- Alternative designs to simple pre- and post-test studies should be considered.
- Researchers should gather information on process, as well as outcome variables.

Reviewer's comments

This is an interesting and apparently well-conducted meta-analysis. It included checks for interactions between different sub-groups/types of programme. The findings of positive effects appear to be well supported and educationally significant. However, the calculation of longer-term effects of .51 should perhaps be viewed with caution, since only some of the programmes included a follow up assessment.

When considering the implications of this research for practice in the UK, it should be noted that the meta analysis included very diverse programmes, most of which were conducted in Australia and the USA. The majority of the participants were adults (e.g. company managers) and university students. A few of the programmes were designed for people with personal and social problems (e.g. disturbed adolescents, delinquents, people suffering from alcohol and drug abuse). These features may limit the generalisability of the findings for outward bound courses aimed at school pupils in this country.

HENDRY, L.B., SHUCKSMITH, J. and LOVE, J.G. (1989). *Young People's Leisure and Lifestyles: Summary Report of Phase I, 1985-1989* (Research Digest No. 14). Edinburgh: Scottish Sports Council.

Aims, sample and method

The longitudinal study described in this report aimed to explore the leisure and sporting interests of young people in Scotland.

The two principal aims of the project were:

- to examine how all young people experience changes in their leisure interests as they develop physically, cognitively and psychologically throughout adolescence;
- to examine the specific ways in which factors such as social class and gender influence development, producing distinctive lifestyles.

Two associated pieces of research were undertaken as part of the study. The first involved a large-scale survey of a representative sample of Scottish youths. The second involved establishing panels of a smaller number of individual young people in case study areas.

Thirty randomly chosen secondary schools were selected as the basis of a sample of Scottish youth. Young people in six different age groups (ranging from nine- to 20-year-olds) were asked to complete a questionnaire. The survey included questions about respondents' families, biographical details and participation in a range of sports, hobby and general leisure pursuits. Over 10,000 replies were received and analysed (a response rate of 83 per cent).

Results

The main finding of interest to this review was that young unemployed people who were often low academic achievers, were the least likely to have been members of sport teams at school or to have played sport for fun.

The patterns of involvement in sport were measured in terms of participation and frequency. For the secondary and post-school samples, the most popular sports were football, rugby, cricket, martial arts and sailing. Ninety eight per cent of the sample had engaged in sport at least once in any given year, but only 58 per cent engaged in a sporting activity on a weekly basis.

In addition to sport played at school, the majority of the sample played in sports teams and clubs outside school. The young people viewed participation in sports as helping them to gain both experientially and socially. Primary school children saw sports participation as fun.

Taking into account age, gender and class differences, the study showed the following:

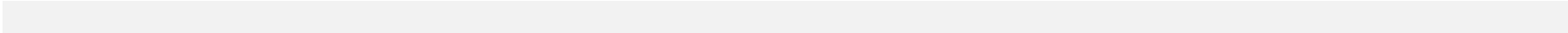
- older age groups (those aged between 17 and 20) took part in fewer sports and did so less often than younger groups;
- boys were more likely to engage in sport than girls, to engage in a wider variety of sports and to take part more frequently;
- young people from working class backgrounds participated in fewer sports and did so less frequently than children from other backgrounds.

Implications

The authors suggest that this research shows that sport and other leisure activities generally constitute an important part of the lifestyles of young people. Sports activities provide an opportunity for young people to satisfy physical and emotional needs, and also facilitate the development of social skills. Through sport and leisure activities, young people develop a range of personal skills and have the opportunity to meet people.

Reviewer's comments

A large scale study which provides some useful information on young people's participation in sporting activities.



MacBEATH, J. (1993). *Learning for Yourself: Supported Study in Strathclyde Schools*. Glasgow: University of Strathclyde, Faculty of Education.

Aims, sample and method

In 1990, Strathclyde Council funded an initiative inviting schools to apply for funding to provide students with facilities for homework and supported study. The initiative was targeted on schools serving deprived populations. The main purpose of the initiative was to raise the self-esteem of pupils, to foster personal relationships between teachers and pupils and to create a relaxed, caring environment.

The definition of study support given in this report refers to learning which takes place out of the classroom in a setting which is motivating and encouraging for the student. Study support is seen as being an active process, in which learners take responsibility for their education.

The evaluation involved a number of schools participating in the initiative. A total of 12 secondary schools were visited and questionnaire data were gathered from 16 schools (it is unclear whether and to what extent these samples overlap). The study participants included head teachers (77), participating students (398), non-participating students (117) and parents (25). (No further information is given on the methods of sample selection, the populations served by the schools, or response rates.)

The researchers paid up to ten visits to each of the 12 schools, over a period of two years. Interviews were conducted with coordinators, teachers and students. Parents from three schools were interviewed on the school premises. In seven of the schools the following methods were used: participating students as well as non-participating students filled in a short questionnaire prior to the start of the programme; students and teachers completed a log of each study session over the course of a year.

In 16 schools, teachers completed a questionnaire and data were gathered on students' attainment in national exams. The attainment data were analysed in relation to the students' level of participation in the study scheme.

Results

The author reports that there was a positive reaction to the scheme from all sectors. The enthusiasm of the students and teachers for study support exceeded most people's expectations.

All the headteachers who were interviewed wished to continue with the initiative, although they were unsure how supported study could be accommodated when funding for the scheme ended. Parents of participating students felt their children had enjoyed the social aspect of studying alongside others, and had become more responsible as a result of their participation. Parents also felt that the scheme had aided their communication with their children about school activities, and had improved their ability to help with their child's homework.

The questionnaire asked teachers to identify the top three achievements of supported study. Three items were selected by more than one third of respondents: student-teacher relationships; achievement in school subjects; and study habits. In interviews, teachers said they valued the opportunity to work with the whole pupil, and that the scheme had given them a better understanding of individual students' needs and expectations. Teachers felt the scheme had given the chance to act as facilitators, rather than 'teaching' subject knowledge. As far as teachers were concerned, the least satisfactory elements of the scheme included:

- an inability to offer support for all aspects of the curriculum;
- the problem of supervising students who had finished their homework;
- lack of parental involvement or interest;
- some students were unable to attend because of evening work or clubs.

The benefits most commonly identified by students were: greater confidence in class and in relation to exams; improved homework grades; better understanding of the tasks; better relationship with teachers; receiving help from classmates; and completing homework quickly. Any disadvantages identified by the students are not discussed.

A comparison was made between the views of students who attended study support with those who chose not to do so. From the outset, participating students held slightly more positive attitudes towards school and to their teachers. In other respects, both groups held similar views. The report states that there appeared to be a general trend among all schools for students who participated in the scheme on a regular basis to do better at Standard Grade than a 'matched sample' of students who did not attend. An analysis of the value added between Standard and Higher Grades for the two samples of students, is described as 'less conclusive.'

Implications

The evaluation showed that the initiative was highly valued by schools. It demonstrated a need for a homework policy, the need to convince parents of the value of study support and the need to link study skills to supported study. The author recommends the use of undergraduate volunteers to work as tutors in future. They could be offered accreditation for working with young people over a given period of time.

The author suggests that there is a need to think about the targeting of future initiatives: for example, should ethnic minority populations, or vulnerable and disturbed students be targeted? If so, how will the schemes be tailored to meet their needs?

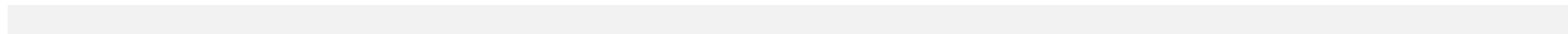
The author identifies a set of issues to be taken into consideration when setting up a study support scheme. These include: getting the right context/environment; access and supervision; resources; promoting the scheme; taking sociometric factors into account; nature of contract (implicit or explicit); expectations; keeping parents informed; staff selection; role of librarians; support and training; safety and security.

Reviewer's comments

This is a largely qualitative evaluation of a study support scheme focused on children from deprived backgrounds. The evaluation is overwhelmingly positive in its outcomes.

Unfortunately, the description of the samples is somewhat confusing and the findings from the interview data are sometimes presented without any indication of the extent to which the identified issues represent common views.

The analysis of examination data appears to give some support to the claims for positive effects of the initiative, but it is not clear how the samples of students were 'matched' and the evidence presented related to the intakes from just two schools (which are said to be 'not exceptional'). It is interesting that students who participated in the initiative had more positive attitudes to school from the outset than students who chose not to take part (this suggests that attitudinal factors may have influenced participation).



MARSH, H.W. (1988). *Extracurricular Activities: a Beneficial Extension of the Traditional Curriculum or a Subversion of Academic Goals* (ED 301578). Sydney, NSW: University of Sydney.

MARSH, H.W. (1992). 'Extracurricular activities: beneficial extension of the traditional curriculum or subversion of academic goals?' *Journal of Educational Psychology*, **84**, 4, 553-62.

See also: Camp (1990).

Aims, sample and method

This research examined the relationship between U.S. secondary students' participation in extra-curricular activities and outcomes such as self-concept, academic achievement and career/educational aspirations.

The article begins with a summary of findings from research in this area. The author suggests that there are three main views concerning the influence of extra-curricular activities on academic achievement, outlined below.

1. Extra-curricular activities are a diversion from academic pursuits and have a negative effect on academic achievement.
2. Extra-curricular activities have little or no effect on academic outcomes but contribute to a student's personal growth;
3. Such activities have positive effects on both academic achievement and personal growth.

The research used the 'High School and Beyond' dataset, comprising a national, random sample of all U.S. public and private high school students entering their sophomore year in 1980 (see the review of Camp, 1990 for further details of this data set). The sample used in this research consisted of 4,000 students and included data from a second follow-up study in 1984 (two years after the students had graduated from high school). Cases were weighted to take account of disproportionate sampling of particular sub-groups.

Outcome variables included: students' results in achievement tests; measures of self-concept; and students' educational and occupational aspirations. The research aimed to illuminate the relationship between these variables and students' level of participation in extra-curricular activities. The questionnaire listed 17 extra-curricular activities, and students were asked to indicate their level of involvement in each on a three point scale: non-participation, limited participation or participation in a leadership role. Among the background variables considered were gender, family background, race, and prior educational experiences.

Multiple regression analyses were used to consider the relationship between participation in extra-curricular activities and student outcomes. The author began by establishing the relationship between background variables and student participation in extra-curricular activities. He went on to examine the relationship between such participation and outcomes. In addition, he considered the possible mediating effects of self-concept, and looked at the extent to which the relationships between extra-curricular activities and outcomes differed according to type of activity and other variables (such as sex, race, college expectations and prior academic ability).

Results

Relationship between participation in extra-curricular activities and background factors

The extent of student participation in extra-curricular activities was found to be related to a number of background factors. The factors reported to be 'positively associated' ($p < .01$) with total extra-curricular participation were: college expectations; attending a smaller high school; attending a rural high school; being black; being female; and coming from a family with higher socio-economic status. There were also positive associations with certain outcomes after the 'sophomore' year (i.e. the first of two senior years). These were: social self-concept; grade point average; and educational aspirations.

Relationships between participation in extra-curricular activities and student outcomes

After controlling background variables and sophomore outcomes, participation in extra-curricular activities was significantly positively related to 17 out of 22 senior and post-secondary outcomes (all but one at the level $p < .01$). These included social- and academic self-concept; taking advanced courses; time spent on homework; grade point average; parental involvement; (low) school absenteeism; college attendance; and occupational aspirations.

The author points out that although these relationships were all positive, many showed a non-linear distribution, indicating that participation in too many extra-curricular activities produced diminishing returns. However, participation only had a negative relationship with outcomes at an 'extreme level', well beyond the average level of participation. The benefits of participation differed substantially, according to the type of activity. Participation in sports activities was particularly strongly associated with social self-concept and with other desirable outcomes. Participation in honour societies, student publications, student government, church organisations, and community service organisations was also consistently related to positive student outcomes.

The influence of self-concept as a 'mediating variable'

The author considered the possibility that involvement in extra-curricular activities encourages young people to hold positive views of themselves, and that this in turn has a positive influence on other outcomes. In this case, self-concept may be viewed as a mediating variable between involvement in extra-curricular activities and positive student outcomes.

The researcher included three self-concept variables as predictor, rather than as outcome variables in the regression analysis. The three variables were: general self-concept; academic self-concept; and social self-concept. General self-concept was not found to influence the relationship between participation in extra-curricular activities and positive outcomes. However, academic and social self-concept were influential: controlling for these factors reduced the strength of the relationship between extra-curricular involvement and positive outcomes. (Academic self-concept had the greater influence of the two.)

Effects for different sub-groups

In this part of the analysis, the researcher investigated the possibility that participation in extra-curricular activities had different effects for different groups within the sample. Seven variables were considered, including sex and ethnicity, school year size, college expectations and prior academic achievement. The results indicated that the effects of participation in extra-curricular activities were reasonably consistent across the sample, with the possible exception of socio-economic status (SES). There were some indications that students from lower SES backgrounds benefited more from participation in extra-curricular activities than did students from more affluent families.

Implications

The author considers that this research provides a clear indication of the academic benefits of participation in extra-curricular activities. There appears to be an indirect relationship between the two: student participation in extra-curricular activities is associated with increased commitment to school and to school values, and this, in turn, has a positive effect on academic achievement.

There is no evidence that participation in extra-curricular activities is harmful to students' academic outcomes, except at extreme levels. There are indications that there is an optimal level of participation, that certain types of activity are particularly beneficial, and that participation may have a more important role for students from lower SES backgrounds.

The author points out that, because of the voluntary nature of participation, it is not possible to answer the question of the direction of causality, even by controlling for pre-test variables (including background factors). He points out that students' participation levels may have changed over time, and that changes in outcome variables may have led to changes in participation levels in some cases.

Other researchers should take account of these findings to:

- look for differential effects of different types of activity (avoid collapsing all types of extra-curricular activity into one general category);
- consider the possible mediating effects of aspects of self-concept (especially academic self-concept);
- consider whether there is evidence of an optimal level of involvement;
- include analyses that differentiate according to SES background.

Reviewer's comments

This is a well-considered secondary analysis of data from a large-scale survey of US secondary students. The approach to analysis is logical, and the author is careful to explain the limitations of the study. The author identifies three possible hypotheses for the relationship between participation in a range of extra-curricular activities and academic outcomes. The evidence supports the contention that participation in certain activities has a positive effect on outcomes, and that academic and social self-concept are important mediating variables.

It is interesting to note, however, that only 17 per cent of the variance in total extra-curricular participation was explained by background factors, and that less than 50 per cent of the variance in senior year outcomes was explained by a combination of extra-curricular participation, background factors and sophomore variables. This suggests that other factors not considered in the research may have influenced both participation in extra-curricular activities and senior outcomes.

MASON, V. (1995a). *Young People and Sport in England, 1994: a National Survey*. London: The Sports Council.

Aims, sample and method

The report presents the results of a nation-wide survey of children's involvement in sport in England, in 1994. This is one of two studies on the subject commissioned by the Sports Council.

The sample of children was selected to represent six- to 16-year-old pupils in state and independent schools across the country. The children were selected from a random sample of schools, within a random sample of 72 local authorities. Of the 248 schools selected, 231 (98 per cent) agreed to take part, and of the 5,030 children selected from those schools, 4,437 (88 per cent) took part. There were between 400 and 450 children in each of the ten school years (half in primary, and half in secondary-age classes). Because of the high response rate, it was considered unnecessary to weight the survey data for possible non-response bias.

Fieldwork was carried out in the summer term of 1994. This included a detailed questionnaire which sought to elicit facts and opinions about children's participation in sport. For secondary-age children, the questionnaires were designed for self- completion. Questionnaires for younger children, however, were designed for completion by parents, with the help of the child.

The research included a consideration of sport participation at times outside the formal school day. This aspect of the survey will provide the focus for this review.

Results

Sports provision in addition to school lessons was categorised under three main headings: extra-curricular sport; sports clubs; youth clubs and other organisations.

Extra-curricular sports activities were defined as those organised by the school but conducted outside lesson time. Ninety-eight per cent of the pupils surveyed had participated in at least 'some' sport outside allocated lesson time. Children engaged in a wide range of sports, but most sports involved a very small proportion of pupils. Only football and netball involved more than five per cent of children responding to the questionnaire.

Sports clubs were defined as clubs which were not organised by the school. Twenty-five per cent of pupils participated in this form of provision. The range of sports in clubs was extensive, but only football, swimming and judo/martial arts were engaged in by more than five per cent of children. In every age group, boys were more likely than girls to be members of sports clubs.

The third category encompassed youth clubs and other organisations offering sports activities, such as Guides or Scouts. Half of the pupils responding to the questionnaire said they had participated in a sport at least one youth club or other organisation, and girls were as likely as boys to participate.

Taking all three categories together, children differed greatly in the amount of time they spent on sport outside lessons and in the number of sports in which they participated, although 98 per cent of children between six and 16 had done at least 'some' sport out of lesson time. Boys in each year-group spent more time than girls on sporting activities, and participation for boys tended to increase with age, whereas the reverse was true for girls. On average, children took part in ten sports per year, but only four were participated in 'frequently' (i.e. at least ten times a year). Of the various types of sport, outdoor and adventurous activities (including cycling and walking) had the highest participation. The top five sporting activities (for boys and girls combined) were; swimming, cycling, football, walking and tennis.

A whole range of factors influenced participation in sport outside of lessons. The research collected information related to levels of interest and enjoyment, reasons for involvement, negative feelings towards sport, and preferences for other leisure activities. Nine out of ten children said they enjoyed taking part in sports out of lesson time.

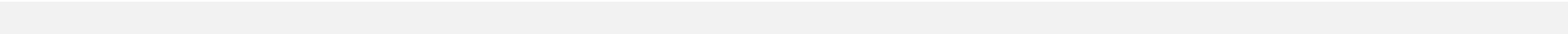
Pupils' views were sought about participation in all sporting activities (both within and outside lesson time). Nearly three-quarters of children agreed with the statement that their family encouraged them to do sport. Enjoyment of sport tended to decrease with the age of the pupils, and boys were much more likely to say they enjoyed sport than girls.

Implications

The implications of the findings are not discussed in the report. However, the author suggests that the dataset could provide a rich resource for further investigation.

Reviewer's comments

This is an interesting report, full of tabulated data but with very little interpretative comment. As the author points out, there is considerable scope for further analysis, including a more thorough investigation between variables (e.g. those relating to age-group and sex in particular). It appears that the survey did not collect information on the pupils' socio-economic status or ethnicity, which would have added an additional dimension to the report.



MASON, V. (1995b). *Young People and Sport in England 1994: the Views of Teachers and Children*. London: The Sports Council.

Aims, sample and method

This report presents the outcome of in-depth interviews held with a sample of teachers and children concerning their views about sport in England. The research was part of a programme of research for the Sports Council, and followed the publication of results from a large-scale survey (Mason, 1995a). This qualitative study was designed to complement the results of the national survey which included a limited measure of children's views about sport and leisure. This study explored children's views in more detail.

The main aim of the research was to improve understanding of the personal and social influences which affect children's involvement in sport.

The sample included 20 teachers of physical education (PE): 13 of whom were heads of PE in secondary schools and seven were curriculum co-ordinators in primary or middle schools. Interviews were held with 40 children, between the ages of six and 15. Efforts were made to represent a range of socio-economic backgrounds. The interviews were conducted by experienced fieldworkers and took place in March 1994.

All interviews were tape recorded and later transcribed for analysis. One part of the report focuses on extra-curricular provision, i.e. activities organised by the school but conducted outside lesson time.

Results

Teachers and children were interviewed separately about their opinions towards extra-curricular sport. The findings from the interviews with teachers are summarised below.

- Teachers tended to view extra-curricular sport in one of two ways: either as a chance to concentrate on the keener, more able pupils; or as something that should be extended to all.
- As teachers tended to provide extra-curricular sport on a voluntary basis, provision was determined by the teacher's ability, interests, priorities and time.
- Although some schools had non-competitive ideologies, most teachers felt that competition was a good thing. Teachers felt that children needed to learn how to win fairly and to cope with defeat and disappointment. Team games were considered to make an important contribution to a child's moral development.
- Teachers felt that extra-curricular activities should be provided during lunch breaks, after school, at weekends and during the school holidays. The need to create links with local sports people and clubs was also considered important. By encouraging them to visit the

- Clubs that were run at school were felt to be particularly accessible to pupils because the surroundings were familiar. Ease of travel and transport were considered to be important.
- Teachers felt that parents had the most significant effect upon child participation. They recognised that in deprived areas, poorer parents tended to show less interest, had less time to become actively involved, had difficulties transporting children and lacked the finance for certain activities.
- Schools in wealthier areas or with a selective intake of pupils tended to have parents who actively encouraged and gave time to supervise, teach, referee or spectate at extra-curricular sports events. They also helped with transport and provided extra funds for sport.
- Most teachers felt that children led overwhelmingly sedentary and indoor lifestyles. Children tended to watch television and videos and play computer games. Fears for children's safety meant that their movement was restricted. Demands upon parents were also considered to have changed: employment commitments resulted in less time and interest in children's extra-curricular sport.

The main findings from the pupil interviews are summarised below:

- Some children were unaware of extra-curricular sports activities provided by the schools. Generally only the most able players (i.e. those in school teams) were involved.
- A number of children had been encouraged by teachers to do extra-curricular activities to improve their Records of Achievement and CVs.
- As indicated by teachers, the socio-economic status of the children's family influenced the range and extent of participation. Some children from poorer families were keen on sport and wanted to be active, but were limited to playing informally in parks and gardens.
- Several children mentioned particular people, such as professional coaches and local sports enthusiasts, who had organised regular extra-curricular sport for them.
- Some children had been inspired to participate by sports personalities they had seen on television. The children viewed them as role models and felt they could relate to them, because of their background and/or enthusiasm for sport.

Implications

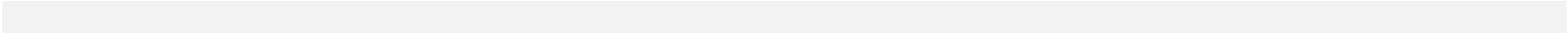
The research suggests that socio-economic status is associated with children's levels of participation in sport outside school, both in terms of the provision offered and the extent to which it is taken up. Factors which lead to a higher level of provision and participation appear to be:

- a balance between competitive and cooperative activities;
- provision for all children, not just able players who are in school teams;

- links with local sports clubs and enthusiasts;
- provision on school sites, to facilitate access.

Reviewer's comments

This is a relatively small-scale qualitative study, and was intended to be exploratory. It provides information about teachers' and children's views, but does not offer any conclusions or recommendations for future development.



McFADYEN, A. and HUGHES, M. (1996). 'A summer school for learning disabled children: description and evaluation', *British Journal of Learning Disabilities*, **24**, 3, 124-8.

Aims, sample and method

This article presents a description and evaluation of a summer school that was designed and set up by the parents of children with learning difficulties during the academic holiday.

The fundamental aim of the project was to maintain each child's level of functioning and if possible achieve progress. A secondary aim was to allow respite for the child's family.

The summer school catered for 12 boys aged between four and ten years, all of whom had learning disabilities and challenging behaviour. Five had pervasive developmental disorder, two had profound learning disability and five had communication difficulties. All had behavioural difficulties characterised by restlessness and hyperactivity, accompanied in some cases by aggressive and destructive behaviour. The school operated three days a week, for a period of four weeks.

The school relied on the involvement of the statutory and voluntary agencies who provided care throughout the year for the children. They offered a range of resources including funding, premises, transport and personnel. The management team comprised of four volunteer professionals from the social services. The project co-ordinator was a community mental handicap nurse from the psychiatry service. A large number of volunteers offered their services. After police screening, interviewing and training, they formed a large part of the 'workforce'.

The ratio of staff to children was 1:1. This was made possible by the small number in the sample and the numbers of experienced staff and key workers. After consultation with teachers and parents, each child had a programme that ensured continuity in management and consistency in approach. Each programme included therapies such as relaxation, drama and behaviour therapy. Time was set aside for such activities as swimming, art and structured play.

In order to evaluate the project, a semi-structured questionnaire was sent to the parents of each child. Questions were asked about the impact of the school on both child and family. Child development was assessed by questions relating to communication, constructive play, tolerance of others, and frequency of inappropriate behaviour. Further questions sought to ascertain whether their emotional state had been aided by the scheme. Questions included the parents' coping ability, time for themselves, availability to other family members and need to see a general

practitioner (GP), and whether additional services had been used. Parents were asked to compare their experience with that of other school holidays.

Teachers were asked to comment in writing about each child, even though they were in most cases different teachers from those the children had had in the previous academic year.

Project workers documented the progress of each child in relation to the aims identified in the individual programme. Volunteers were asked to comment on their experience of working at the summer school in terms of personal enjoyment, satisfaction and development.

Results

Nine of the 12 parents returned questionnaires. More than half of the children maintained their level of development, with some actually making progress in certain areas. All but one of the children was described as happy throughout the holiday period.

Throughout the period none of the parents felt unable to cope. Almost all reported that they had managed to have time for themselves, and time for other members of their families. During the period of the summer school, only two parents were seen by their GP.

Teachers stated that the children settled into school easily after the summer break compared with their experience of pupils in previous years. The project workers' general impressions were that all children benefited in one or more areas, and that most children maintained their level of functioning after their return to school.

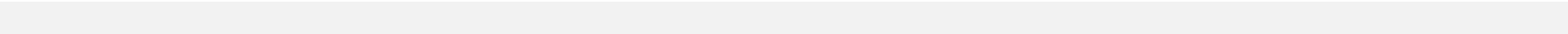
The volunteers were a diverse group in terms of their background and experience. Most found the summer schools challenging and emotionally demanding but expressed positive feelings about their experience.

Implications

The summer school described in this article was a user-led multi-agency project; whereby parents initiated the scheme, and professionals from a range of agencies became involved in the design and implementation. The children were offered consistency and routine in a safe and developmentally appropriate environment. They reportedly enjoyed themselves and the scheme met the secondary aim of offering respite to parents. The project may provide a useful model for future schemes seeking to satisfy similar aims.

Reviewer's comments

This is an interesting account of an initiative for children with learning disabilities. However, it should be remembered that the evaluation includes the views of people who were involved in setting up the scheme and who hoped the scheme would be a success.



MILLER, A. (1998). *Business and Community Mentoring in Schools* (DFEE Research Report 43). London: DFEE.

Aims, sample and method

This report presents the findings from a research study of mentoring in secondary schools, which took place from 1996-7. The research was carried out by a senior research fellow, based at the University of Warwick. The research aimed to examine the objectives, processes and outcomes of mentoring schemes at key stage 4, and to make recommendations on the way schools and partner organisations can maximise the learning benefits from mentoring schemes.

The main focus of the study was on mentoring for pupils in Year 11 (age 16). The researcher selected seven schools from three Technical Education Council (TEC) areas: Hampshire; South London; and Wakefield. Data were collected from 103 students and 59 of their mentors in the case-study schools. The schools were involved in a variety of mentoring schemes, all of which linked representatives from business and the community with pupils. These included national, local and school-initiated schemes. Although there was a shared emphasis on improving student attainment, the schemes differed in their selection criteria. For example, some focused on high ability students, while others selected students of low attainment or ability. Some of the schemes included additional selection criteria, such as good (or poor) attendance, perceived level of student motivation or level of organisational skills.

The researcher conducted interviews with mentoring coordinators and with students in the case-study schools. Information was gathered from mentors by means of a postal questionnaire or interview. The researcher used students' GCSE results as an outcome measure. School coordinators were asked to identify a control group of students who were similar to the mentored students (in terms of gender balance, ethnicity, ability and range of GCSE subjects studied). The control group students were not involved in any other strategies to raise attainment. In order to gain an assessment of the students' expected GCSE performance, 90 mentored and 93 control group students took a term two Year Eleven Information System (YELLIS) test. YELLIS comprised tests of mathematics and vocabulary, and a questionnaire to identify students' 'cultural capital'.

The YELLIS results were used to predict the students' GCSE performance. Residual scores were then calculated for the difference between the YELLIS prediction and the students' actual GCSE points scores (A* = eight points and G = one point). Average residuals were calculated for the mentored and control groups and for boys and girls in each school. The differences between the average scores obtained by mentored and control group students was used to indicate the value added by the mentoring scheme.

In addition to the case studies, information was gathered by means of a survey of schools involved in mentoring schemes, located in the same three geographical areas. A questionnaire was sent to 31 schools, 25 of which responded.

Results

The interviews with students indicated that most (70 per cent) felt mentoring had had a positive effect on their motivation to do well in their GCSE examinations. Over half of the sample said they had spent more time on coursework and homework, had paid more attention in class and had shown more interest and enthusiasm in class. The students reported some positive effects of mentoring on other aspects of their lives, including attendance, punctuality and career aspirations.

Mentors said they had derived considerable personal satisfaction from taking part, although they had less optimistic views than students about their impact on students' motivation. Those who met students regularly were more confident that they were having a positive influence on students' attainment.

The overall results of the GCSE analyses showed that girls tended to perform better than boys in relation to the scores predicted by YELLIS. Mentored girls out-performed their predicted scores by 0.39 more than control group girls (i.e. the 'value added' for girls in the mentoring scheme was around a third of a grade). For both groups of boys, the average scores were below their YELLIS predictions, but those in the mentoring scheme performed 0.41 better than the controls in relation to their predicted scores. There were 'wide differences' between schools: whereas students in three schools performed well, those in the remaining four schools performed poorly in relation to the YELLIS predictions.

Implications

The author states that mentoring is widely regarded as a means of helping to improve students' attainment, but this is not the sole objective of mentoring schemes. Teachers views indicated that they hoped mentoring would have an indirect effect on performance, by improving students' self-esteem, self-confidence or motivation.

The author suggests that the differences between schools as regards the effects of mentoring on GCSE results may be due to differences in the selection criteria and operation of the mentoring schemes. He also cautions against reaching definitive conclusions on the basis of small numbers of students in each school.

The report concludes with a summary of recommendations for good practice, some of which are given below.

- Appropriate objectives should be set and a suitable model of mentoring chosen. The objectives should be communicated to all involved and success criteria developed for each objective.
- There should be an explicit link between mentoring and other strategies for raising attainment. Mentors should be briefed about students' coursework commitments and appropriate indicators should be monitored. Some form of value-added measure should be used to evaluate the impact of mentoring on attainment.
- Schools should select poorly motivated students to take part in mentoring schemes, monitor their motivation and provide feedback to mentors.
- Students should be paired with mentors who have similar career interests. Students should be encouraged to visit their mentors' places of work, and mentors should be involved in helping students to clarify and explore their career options.
- The benefits of the mentoring scheme should be evaluated and the mentoring scheme should be used to develop partnerships with employers.

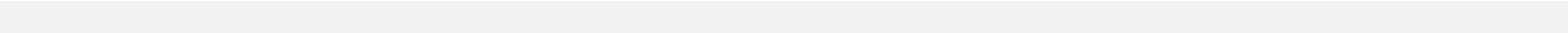
Reviewer's comments

This is recent research focusing on mentoring in English schools. Although it is not made clear when the mentoring meetings took place (and therefore whether the activity can be said to be outside school hours), mentoring schemes of this kind do come within the remit of this review.

The report's author is cautious about the results of the GCSE predictions, but nevertheless sees them as supportive of the positive benefits of the mentoring schemes. However, there are some concerns about the design, analysis and reporting of this study that should be mentioned. Given sufficient resources, it would have been better for the selection of treatment (i.e. mentored) and control (non-mentored) students to have been made on a randomised basis. If this was not possible, it would have been preferable for the researcher to have selected a matched control group, rather than to have asked teachers to make this selection. Because the control group was selected by teachers, it is possible that some form of bias was present in the composition of the two groups which influenced the results.

The analysis of residual gains is not sophisticated. Although the author describes some of the differences between treatment and control group scores as 'significant' it is doubtful whether these would reach statistical significance (no form of statistical analysis is reported). The report draws on data from several sources, but it is not always clear from which source some of the findings are derived. There is some confusion about the number of students involved in the sub-samples (interviews and tests), because the reported numbers do not add to a consistent total.

Overall this is an interesting study with some useful insights into mentoring schemes for Year 11 students. Nevertheless, the results from the assessment data are difficult to interpret and cannot be relied upon as evidence of significant positive effects of mentoring on GCSE performance.



MYERS, K. and MacBEATH, J. (1998). 'Changing your life through study support: how will we know if it makes a difference?' Paper presented at the AERA Conference, San Diego, 13-17 April.

Aims, sample and method

This paper sets out the strategy developed by the authors to evaluate study support programmes in British schools. The aim of the *Prince's Trust* evaluation and development project is to discover whether study support centres (SSCs) have a positive effect upon the academic achievement of students who attend study sessions out of school hours. It is intended to assess the value added by SSC attendance, to compare SSC attendees with non-attendees, and to compare regular attendees with those whose attendance is more occasional and spasmodic.

The sample includes 54 schools in ten areas of deprivation in England, Wales and Scotland. All of the schools are participating in the Prince's Trust study support scheme. The evaluation is focusing on more than nine thousand students. Eight thousand are in Year 9 and the remaining thousand are in Year 7. Students will be tracked for three years. A student database has been established to allow changes in attitude and performance to be monitored throughout the project. The database holds information about students' socio-economic background, ethnicity and gender. A relatively high proportion of students is entitled to free school meals (36 per cent in Year 9 and 38 per cent in Year 7). This compares with the national average of 18 per cent. Approximately one third of all students in the sample are of New Commonwealth origin; 54 per cent are girls and 46 per cent boys.

During the first term of the 1997/8 academic year, all the participating schools administered a series of instruments, which included non-verbal reasoning tests, a student attitude questionnaire, and a teacher questionnaire. The NFER-NELSON Non-Verbal Reasoning Test was used because of its strong correlation with subsequent GCSE performance. The NFER student attitude questionnaire includes a range of questions on students' attitudes to school and academic work. Students indicate their degree of agreement with each item, using a five-point scale. The teachers' questionnaire was designed by the authors and sought views on a range of issues, including 'opportunities for pupils to learn outside of school hours'. Teachers were given a number of statements and asked to rate the degree to which this was true of their own school and the importance of each statement in an ideal 'effective' school. These responses were analysed and fed back to the individual schools.

Results

The average non-verbal reasoning score for students in project schools (around 38 per cent) was considerably below the national average (50 per cent). In terms of their responses to the attitude questionnaire, most students said they were happy at school and felt attendance and participation to be worthwhile, although over a third agreed with the statement: 'Most of the time I don't want to go to school'.

In response to a series of questions added for the purposes of this study, the vast majority of students said they were aware of the lunchtime and after-school activities offered in their school, and about half said they took part. Fewer girls than boys participated in the extra-curricular activities, although this pattern was more apparent among the older students.

Implications

The authors suggest that the collection of student and teacher data has given a baseline profile of the student body and an insight into the school culture as perceived by teachers. The study will provide value-added data and some concrete information on the effectiveness of study support in different forms and in different contexts. This will make a valuable contribution to national policy and help to refine a national code of practice for study support.

The authors also draw attention to the benefits of the project for individual schools: it provides diagnostic and formative data which should prove invaluable for the development of study support programmes. It will be possible to disaggregate the data by gender or social class, and assess patterns of attendance, achievement and attitudes and the inter-relationship among them. The continuing collection of qualitative data will complement and enrich the quantitative data, and indicate whether study support can enhance the skills and attainment of those who attend, and if so where and how it should be organised.

Reviewer's comments

This paper provides a clear explanation of the Prince's Trust study support evaluation strategy. As the authors point out, it should enable key questions about the contribution of study support to students' attitudes and progress to be addressed. The longitudinal nature of the study and the inclusion of verbal reasoning assessments and attitudinal measures are strong features of the design. However, it should be noted that the evaluation has not adopted an experimental design: all the schools offer study support and there is no control group of schools. Although it will be possible to compare the outcomes of students who have (and have not) chosen to take part in study support activities, questions may still remain about the equivalence of the two groups, particularly in relation to attitudes, which will make it difficult to establish the nature of any relationships between participation and outcomes.

NATIONAL MENTORING NETWORK (1996). *National Mentoring Network Survey*. Salford: National Mentoring Network.

Aim, sample and method

The aim of this survey was to ascertain the number of people involved in mentoring programmes within education and the type of programmes with which they were involved.

All members of the National Mentoring Network (the number is not given) were invited to participate in the survey. Returns were received from a total of 88 programme providers. The survey sought to gather quantitative data about current provision, target audience and effectiveness.

Results

The majority of programmes surveyed were run by 'third party' organisations, such as Education Business Partnerships and Compacts, who recruit mentors to work in a number of schools and colleges. Mentors were recruited from a number of sources, including: public sector and private sector businesses; students in higher education; and retired volunteers. Meetings between mentor and mentee tended to occur fortnightly and lasted between half an hour and an hour. There were examples of both group and individual mentoring, and most programmes ran for a year. The majority of the 88 programmes worked with more than one school or college. The vast majority of programmes were based in schools.

Most mentoring programmes were directed at Year 10 and 11 pupils. Of the 4102 pupils involved in mentoring programmes, 3289 pupils were younger than 16 years. Under-achievement, lack of confidence and a potential to achieve were the most common criteria upon which pupils are selected for involvement in mentoring. Unsurprisingly, the respondents felt that pupils with these characteristics benefited most from the provision.

Implications

The report consists of tabulated responses: no discussion or conclusions are offered.

Reviewers' comments

This is a basic source of information about mentoring schemes.

O'BRIEN, J. (1996). *Secondary School Pupils and the Arts: Report of a MORI Research Study, July 1996* (ACE Research Report No.5). London: The Arts Council of England.

Aims, sample and method

This survey gathered information on the attitudes of young people to the arts and their levels of participation in arts and cultural activities. The researcher contacted a sample of middle and secondary schools in England and Wales. The schools were selected in relation to school size and location, to provide a nationally representative sample. Of the 300 schools contacted, 192 participated (a response rate of 64 per cent).

The age groups included in the survey were 11- to 16-year-olds (i.e. those in Years 7 to 11). One class from each school was selected at random to be involved in the interview programme. Representatives from MORI administered self-completion questionnaires to all pupils in the class in January and February 1996. Questionnaires were collected from 4,532 pupils. One question asked pupils to indicate whether they had participated in any of 13 specified arts activities since the beginning of the school year. The question distinguished between activities taking place in three contexts: in school lessons; at school but outside lessons; and outside school.

Results

Pupils reported low participation in extra-curricular arts activities, with 46 per cent of the sample indicating that they had not been involved in any of the listed activities (this percentage includes pupils who did not respond to the question). The most popular extra-curricular arts activity was photography (18 per cent). Other relatively popular activities were: reading novels/poems (16 per cent); computer graphics (15 per cent); singing in a choir (14 per cent); and playing a musical instrument alone (14 per cent). The report draws attention to the fact that pupils were more likely to participate in photography and instrumental/choral music activities organised as extra-curricular activities than as part of school lessons.

Implications

Compared with arts participation at school and at home, participation in extra-curricular arts activities was at a low level. The authors suggest that there is potential for much greater use of school facilities and staff to provide arts activities outside of school hours.

Reviewer's comments

This survey was not designed to look in detail at arts activities taking place out of school hours. Nevertheless, it provides some useful basic information.

The survey did not collect information at the school level on provision for arts and cultural activities out of school hours. For this reason, impossible to deduce how many of the non-participants had been offered activities which they had chosen not to take up. The extent of participation in photography as an extra-curricular activity is surprising: perhaps the survey included a disproportionate number of schools with photography clubs?

POCKLINGTON, K. (1996). 'The evaluator's view.' In: MYERS, K. (Ed) *School Improvement in Practice: Schools Make a Difference Project*. London: Falmer Press.

Aims, sample and method

This chapter evaluates the effectiveness of the Schools Make a Difference project (SMAD). The project aimed to raise students' levels of attainment, achievement and morale. It involved eight secondary schools in the London borough of Hammersmith and Fulham and ran for two years starting in January 1993.

The SMAD project invited the schools to offer suggestions for possible initiatives to improve standards. These varied, reflecting the structure and culture of the schools, but the following initiatives relating to study support were put in place.

- Flexible Learning Centres (FLCs) provided opportunities for children to carry out independent research. The centres were open during normal lessons, but most schools arranged for them to operate out of hours (during lunchtimes, before and after school, and in the school holidays).
- Revision centres and coursework clinics enabled pupils to revise for their GCSE examinations in the Easter holidays.
- Extended day provision ran before and after school hours and included homework facilities, enrichment activities (e.g. calligraphy and photography) and curriculum extension.

The evaluator conducted semi-structured interviews with key participants. These included the school co-ordinators, the headteachers and the project manager. Schools were visited on three occasions. Interviews were also held with a range of staff who had become directly involved with the project. Students in six of the eight schools were interviewed about their experience of SMAD and related benefits.

Other sources of information included a questionnaire to a random sample of teachers drawn from the eight schools, and an examination of relevant documentation. In addition to qualitative methods, the research compared the GCSE results of students participating in the SMAD initiatives with those of students who had not participated.

Results

The project attracted high voluntary attendance and retention rates were good. The student interviews revealed that the centres had been regarded positively. The revision centres were particularly popular. Students felt these had provided good facilities for study, access to resources, individual attention from teachers and help with study skills and exam technique.

Information from the interviews with teachers indicated that those students who participated in SMAD activities exhibited positive changes in behaviour and motivation. These included: more mature and responsive behaviour; growth in pupil self-esteem; and better levels of motivation. Teachers felt the project had helped students to form stronger and healthier relations with staff and other students. Teachers participating in the SMAD project became more motivated and willing to consider further strategies for school improvement.

Over half of the Year 11 pupils attended the Easter revision centres. The quantitative analysis compared the average GCSE points scores achieved by 758 students who attended the revision centres with the scores of 367 students who did not choose to attend. (Students who were not entered for any GCSE examinations were excluded from analysis.) The students who attended the centres achieved an average score of 35.7 points, compared with 25.6 for students who did not attend. The difference of ten points is equivalent to two grade C GCSEs per student. The researchers questioned whether the exam revision attendees were of higher ability than non-attendees. In order to check this, students' scores on the London Reading test (LRT) administered at the time of their entry to secondary school were considered. A scatter plot of GCSE scores by LRT scores showed no evidence of differential ability influencing revision centre attendance.

Implications

It is suggested that the SMAD scheme largely achieved its aim of raising pupil attainment, achievement and morale. Study support may be provided in a variety of ways, and offers both pupils and teachers a motivating experience which enhances pupil-teacher relationships. It improves pupils' self-esteem and encourages maturity, as well as raising attainment.

Reviewer's comments

As recognised by the author, it cannot be determined with any certainty whether the differences in academic performance stem from the tendency of the revision centres to attract a disproportionate number of the more highly motivated students. The author recognises that examination success is not directly dependent upon attendance at revision classes, but it can be inferred that some students, in some of the schools, appeared to have benefited from this provision.

POSNER, J.K. and VANDELL, D.L. (1994). 'Low-income children's after-school care: are there beneficial effects of after-school programs?' *Child Development*, **65**, 2, 440-56.

Aims, sample and method

This US research study set out to establish whether there were any beneficial effects on academic achievement and socioemotional factors for low-income children attending after-school care.

The researchers contacted parents of all children attending third-grade classes (nine-year-olds) in nine elementary schools. The schools were located in urban areas of the Milwaukee School District. Fifty per cent of the parents agreed to take part in the study, and the researchers state that there were no differences between participants and non-participants in terms of factors such as race, poverty status and children's scores on a reading test.

A total of 216 children were selected for further study, on the basis of their participation in one of four after-school care arrangements for at least three days a week. The four categories were: maternal care (n = 121); informal adult supervision (45); self-care (15) and a formal after-school programme (34). The children were from predominantly low-income backgrounds, with 60 per cent qualifying for subsidised school lunches. About half of the children were black and over half were from single-parent households.

The researchers gathered information in relation to three areas of interest:

- family background factors that might influence the type of after-school care used (e.g. demographic variables including family income, parenting style, parents' perceptions of children's readiness for self-care and of neighbourhood safety);
- children's activities and experiences after school (interviews with children about their activities and involvement with adults/peers, backed up by telephone calls to check the accuracy of the information);
- children's academic/socioemotional performance (school records, teacher ratings of behaviour, parents' reports of behaviour problems, school grades and scores on a standardised reading test).

The researchers used chi-square tests and analysis of variance to check for associations between background factors and type of after-school care. They went on to examine the relationship between children's academic performance and type of after-school care, using multivariate analysis of variance and adjusting for background factors associated with type of care.

Results

The researchers investigated associations between children's after-school activities and type of care, and the relationships between use of after-school time and other factors.

Factors affecting selection of after school care

There were statistically significant associations between type of after-school care and three background factors: race; maternal education; and family income. White families were more likely than black families to allow children to care for themselves, whereas black families were more likely to use informal adult supervision ($p < .05$). Mothers using formal after-school programmes or informal adult supervision were better educated than those whose children returned home after school ($p < .05$). Family incomes were lower for children who attended formal programmes than for those in informal supervision or self-care ($p < .05$). As might be expected, after-school care and maternal employment were related: care by mothers after school was more common among mothers who were not in paid employment ($p < .001$).

Differences in children's academic and socioemotional performance associated with type of after school care

There were statistically significant relationships between type of after-school care and children's academic and socioemotional performance. Children attending formal after-school care programmes had higher school grades for: mathematics ($p < .05$); reading ($p < .01$); other academic subjects ($p < .01$); and conduct ($p < .01$) than did children in mother care or informal adult supervision. There were no significant differences between the groups on scores in the standardised reading test.

Compared with children who were informally supervised by adults, those attending formal programmes had higher ratings from their teachers on such aspects as work habits, emotional adjustment and peer relations ($p < .05$). Parents' overall ratings of their child's problem behaviours were not significantly related to type of after-school care, although children who were unsupervised or under informal supervision were reported to have more anti-social behaviour than those in the other two types of care ($p < .01$).

Relationships between type of activity and type of care

The following significant relationships were found between children's activities and experiences and the type of care. Children attending formal programmes spent more time in academic activities ($p < .01$) and enrichment lessons, such as music and dance activities ($p < .01$); and less time

watching television ($p < .01$) than those in any other group. These children spent less time in unorganised outdoor activities (e.g. playing chase) than those in other types of care ($p < .05$). Children in after-school programmes experienced the highest proportion of their time in the presence of adults, or peers ($p < .01$). Children who were in self-care were least likely to have an adult present, although even these children reported that an adult was present for 73 per cent of the time, on average. Children in self-care and informal supervision did not differ in the amount of adult supervision they received: both received less supervision than children in either mother care or formal programmes.

Relationships between type of activity and children's performance

The final set of analyses investigated correlations between children's use of time after school and their academic and socioemotional performance. Initial investigations showed a similar pattern of relationships between type of activity and outcome measures across the four types of after-school care. There was one exception, however: time spent with peers was positively correlated with school conduct grades for children in formal care but was negatively correlated with conduct grades for children in self-care.

Taking children in all types of after-school care together, there was a pattern of significant relationships between certain types of activity and school grades and behaviour ratings. Children who spent more time in academic activities after school had significantly better school conduct grades and received higher ratings from teachers regarding their relationships with their peers. Time spent in enrichment lessons was significantly positively correlated with teachers' ratings of children's peer relations, emotional adjustment, work habits, conduct grades and academic grades in language, science and social studies. Time spent in unorganised outdoor activities was negatively associated with a range of academic grades (including mathematics and reading), work and study skills and teachers' ratings of emotional adjustment. Time spent with adults after school was positively related to conduct grades and was associated with fewer instances of anti-social behaviour (as reported by their parents). Time spent with siblings after school was negatively related to teachers' ratings of children's emotional adjustment.

Implications

The authors state that their study has shown extensive positive effects for low-income families of participation in formal after-school programmes. They contrast the positive results obtained in this study with results obtained in a previous study of middle-class children, which indicated that after-school care was negatively associated with social, emotional and academic outcomes.

On the basis of the conflicting results from their two studies, the authors suggest that after-school care has different implications for middle- and lower-income families: 'The social ecology of after-school care appears to be markedly different for low-income urban children' (Posner and

Vandell, 1994 p.454). The authors point out that in their study of low-income children, formal after-school programmes provided more learning opportunities than did the alternative forms of care. They attribute the positive social and emotional outcomes associated with formal programmes to the comparatively greater amount of time spent with adults and peers in organised academic and enrichment activities. On the other hand, children who engaged in unsupervised activities may have had more opportunities to become involved in anti-social behaviour with 'deviant peers'.

Although the authors acknowledge that findings concerning the effects of 'self-care' are limited because of the small sample size, they suggest that there are indications of 'risks' posed by this type of arrangement. They point out that children in self-care spent less time under adult supervision, and that amount of time without adult supervision was in turn associated with anti-social behaviour.

Contrary to the researchers' expectations (based on the findings of previous research), children in informal supervision did not perform better than children in self-care or those who were supervised by their mothers. In fact, for some of the academic and socioemotional measures, children under informal supervision performed significantly less well than those supervised by their mothers. The authors suggest that these negative relationships may derive from the lack of stability of such arrangements: many children under 'informal supervision' were placed with different adults from one day to the next.

Reviewer's comments

This is a very thorough and apparently well-conducted piece of research. As the authors acknowledge, the results for the 'self-care' group may be limited by the small sample size. The authors' previous research into the effects of after-school care for middle-class children enables them to identify specific benefits of formal after-school programmes for children from low-income families.

There are some limitations, however, in the design and interpretation of results. The fact that only half of the total sample agreed to take part in the research may indicate that the sample was not representative of the population as a whole. The design was not an experimental one, and it is possible that there were important differences between children attending the different forms of after-school care which were not addressed in the research.

The part of the research focusing on outcomes associated with different types of care is open to alternative explanations. First, the use of teacher ratings and parental reports as outcome measures may have been prone to bias (i.e. because the teachers and parents knew which form of after-school care the children attended, their ratings may have been influenced by their views on the superiority of different types of care). It is also

possible that some of the variables described as ‘outcomes’ had an influence on the choice of care. For example, a positive correlation between participation in academic activities after school and good conduct grades is interpreted by the authors as evidence that participation had influenced children’s conduct. An alternative explanation could be that poorly-behaved children were less likely to participate in academic activities after school (i.e. that conduct influenced participation).

SAINSBURY, M., MASON, K., WHETTON, C. and SCHAGEN, I. (1997). *Evaluation of Summer Literacy Schools*. London: QCA.

SAINSBURY, M., WHETTON, C., MASON, K. and SCHAGEN, I. (1998). 'Fallback in attainment on transfer at age 11: evidence from the Summer Literacy Schools evaluation', *Educational Research*, **40**, 1, 73-81.

See also: Andrews (1997) and Cooper *et al.* (1996).

Aims, sample and method

These two documents report the results of an evaluation of the pilot Summer Literacy Schools which were set up in 1997. The initiative aimed to improve the literacy skills of pupils in Year 6 (11-year-olds) who had not met the national standard in reading.

Fifty Summer Literacy Centres were established in secondary schools located throughout England. (Further details of the pilot scheme are given in the review of the 1997 DfEE report referred to above.) It was intended that the centres would improve children's literacy skills and enhance attitudes towards reading. Pupils who had not achieved level 4 in their National Curriculum English assessments, conducted in May, were offered the opportunity of attending a centre. Attendance was voluntary.

The evaluation aimed to assess changes in reading attainment between national testing in May and similar tests administered in September. The researchers compared the performance of 925 children who had attended 43 of the centres (the treatment group) with a group of 1097 pupils who did not attend (the control group). The researchers selected the control group from children transferring from the same primary schools to the same secondary schools as those in the treatment group.

The control group was selected on the basis of pupils' performance in the national curriculum English test. All available pupils achieving at level 2 or 3 were selected, and the rest of the sample was randomly selected from the remaining pupils. The treatment and control groups contained equivalent proportions of boys and girls. The researchers attempted to obtain additional background information about each child, but there was so much missing data that this could not be used to assess the equivalence of the treatment and control groups. The pre-test scores for the control group were significantly higher than those of the treatment group ($p < .01$). This was because the control group contained a higher proportion of pupils achieving at or above level 4 than did the treatment group.

The pre-test was the National Curriculum assessment for English, administered in May. This test consisted of a written story and two information texts: pupils were asked to respond to a series of written questions about the texts, including assessments of information retrieval, inference, deduction, plot, character and style. The post-test was a similar instrument. It was administered by visiting administrators to both groups of pupils in their secondary schools at the beginning of September 1997.

In order to assess changes in attitudes of the treatment group, pupils were asked to respond to an attitude questionnaire, which included questions about their enjoyment and frequency of reading, their attitudes to school and to transfer to secondary school, and their attitudes to the Summer Literacy School. The questionnaire was devised by the researchers and administered by the summer literacy teachers at the beginning of the summer school. The post-test comprised a similar questionnaire which was administered to both treatment and control group pupils in September, by the visiting administrator. (The attitudes of the non-attendees were not measured in a pre-test because this group was only identified on entry to secondary school.)

The analysis used multilevel modelling to assess changes in pupils' age-standardised scores on the English tests. Three levels were used: the summer school (i.e. the 43 schools in which the Literacy Centres were based); the pupils (treatment or control groups); and the time-point (pre- or post-test).

Results

The analysis of the standardised test results revealed a general decline in scores from pre-test to post-test for all pupils. The decline was equivalent to one third of a standard deviation for the total population. There were no statistically significant differences between the summer school and control group pupils in terms of their reading progress. A subsequent analysis, which included only those pupils at level 3 in the pre-test, confirmed that the treatment group did not make significantly better progress than the controls.

The analysis of the attitudinal data showed a complex pattern of significant relationships. On the basis of post-test comparisons, children who attended the summer schools had a higher level of reading enjoyment and a lower level of confidence in reading than did children in the control group. Summer school attendees read more frequently and had more support for reading at home than did pupils in the control group. It appears that some of these relationships were the result of pre-existing differences between the groups. An analysis of changes in attitudes between pre- and post-test for the treatment group showed that their reading enjoyment and confidence in reading improved significantly. The children's

reported frequency of reading at home did not increase. Summer school attendees held very positive attitudes towards the summer school both before and after attending. They were also more confident about their ability to cope with the transition to secondary school and the increased demands of secondary education, after taking part in the initiative.

Implications

The researchers conclude: 'The principal finding from the analysis of test scores must be that there is no evidence that summer schools led to an increase in scores on Key Stage 2 reading tests' (Sainsbury *et al.*, 1997, p.18).

The authors state that decline in pupils' scores over the summer holiday period is consistent with the findings of previous research, although the decline documented in this research was much larger than the decline identified in a previous meta-analysis of research conducted in the USA and Canada (Cooper *et al.*, 1996). The authors offer four possible explanations for the decline in scores. First, that the decline in reading scores is due to a lack of reading practice during the summer break. Second, they point out that the period between testing included the second part of the summer term, which is often devoted to less academic work. Third, it is possible that children's performance was negatively affected by anxiety experienced during transition from primary to secondary school. A fourth explanation for the decline in scores is that, while children are encouraged to do well in their National Curriculum assessments (used as the pre-test for this research) there was less importance attached to the outcome of the post-test, which was used purely for research purposes.

The research found that children's attitudes towards Summer Literacy Schools were overwhelmingly positive. Treatment group pupils' enjoyment of reading and their reading confidence had improved significantly between the initial and final questionnaires. There were also some positive changes in their attitudes to school. The researchers speculate that these positive attitude changes may affect the future reading progress of children who attended the Summer Schools.

The report concludes with suggestions for improvements in the design of any subsequent evaluations of summer literacy schools. These include recommendations that:

- participating schools should be identified earlier, in order to identify a control sample at an earlier stage;
- a pre-test measure of attitudes should be administered to the control group;
- if possible, the pre-test should not be the key stage assessment, but should be an equivalent test administered later in the school year (i.e. nearer the beginning of the Summer School);

- a cross-over design should be used, with one test used as a pre-test for half the sample and the post-test for the other half, and a second test being used as an alternative pre- and post-test.

The authors make two suggestions for further research. They identify a need for research into the effect of the summer holidays (and in particular of transition from primary to secondary school) on pupils' achievement. The authors also recommend re-testing the pupils in the existing study at the end of Year 7, to see whether positive changes in attitudes have led to greater progress in reading at the end of the academic year.

Reviewer's comments

This is a well-conducted study, given the limitations imposed by a lack of time to set up the evaluation of this pilot scheme. The authors are aware of these limitations and are careful to point out the ways in which the results may have been affected.

The evaluation design was not a controlled experiment, because pupils were not randomly allocated to treatment and control groups. The average pre-test score of the control group was significantly higher than that of the treatment group, and it was not possible for the researchers to check the equivalence of the two groups in terms of background factors (such as socio-economic status, ethnicity, English as a second language). There is also some suggestion that there were pre-existing differences between the two groups in terms of their attitudes towards reading. However, the researchers did carry out a separate analysis of reading progress using only pupils with equivalent pre-test scores, and this showed no significant differences between the two groups in terms of their reading progress.

The results of this study are somewhat disappointing in relation to the aims of the pilot scheme. It seems surprising that an intervention targeted at boosting reading achievement did not achieve the desired outcome, and that the reading scores of all pupils showed such a large decline between May and September.

Although the initiative was intended for pupils attaining around level 3, an analysis of the pre-test data revealed that 31 per cent of the treatment group had attained level 4 or above. This implies that teachers were using criteria other than National Curriculum attainment to select pupils to take part in the programme, and raises questions about the degree to which the programmes were able to meet the needs of the participating pupils.

SMITH, D.J. and TOMLINSON, S. with BONNERJEA, L., HOGARTH, T., TOMES, H. and LONGFORD, N. (1989). *The School Effect: a Study of Multi-racial Comprehensives*. London: Policy Studies Institute.

Aims, sample and method

This is the report of a longitudinal research study carried out between 1981 and 1988. The research looked at many different aspects of school effectiveness, with a particular focus on the education of black children.

The study followed the progress of a cohort of 11-year-olds who transferred to 20 multi-ethnic secondary schools in 1981. The schools were located in four English LEAs. Initially, about 3,100 students participated in the study. By the fifth year of study, two schools had left the sample and information was collected on a sample of 2,426 pupils. A range of data collection techniques was employed, including: teacher, pupil and parent questionnaires; parent interviews; test results (standardised mathematics and reading tests); and attendance data.

Pupils were asked a number of questions about their participation in extra-curricular activities, including participation in teams, plays, concerts, school trips and involvement in clubs or other groups at school. The researchers derived a participation score for three groups of activities, two of which are of interest to this review. The first comprised teams, concerts/plays, school trips and doing 'something special in an assembly or in a meeting of your year or house'. The researchers also examined the pupils' involvement in a school club or group. These scores were analysed in relation to students' ethnic group (country of birth of the student's parents) and the family's socio-economic status, derived from information provided by parents. There was also an analysis of participation in these types of activities for each school.

The researchers used analysis of variance to consider the relationship between students' mathematics or reading scores and their participation in extra-curricular activities (i.e. participation in teams etc., rather than clubs). The model used Year 8 scores as the outcome variable and controlled for sex, socio-economic status, country of origin and Year 7 attainment in mathematics or reading. In a further analysis, participation was used as the outcome measure, and sex, socio-economic status, country of origin and Year 8 reading attainment were included as independent variables.

Results

The pupils' responses to questionnaires in Years 7 and 8 showed that there was a relatively high level of participation in extra-curricular activities. For example, 88 per cent of the pupils had been on a school trip, 59 per cent had played for a school team, 53 per cent had been in a

school play or concert and 46 per cent were attending a club or group at the school. Among the clubs and groups, games was the most common type of activity (attended by 22 per cent of the sample).

Analysis of participation in two groups of activities (school teams/trips etc. and school clubs) revealed that there were clear patterns of involvement related to ethnic group. Participation in both types of activity was highest for children whose parents were born in the UK or Eire and for children of parents born in the West Indies. It was lowest for those of South Asian or other origins. A further breakdown of the South Asian group by religion revealed that Moslems were least likely to participate (28 per cent of Moslem children belonged to a club or group, as opposed to 42 per cent of Hindus and 38 per cent of Sikhs). There was also a clear relationship between participation and socio-economic status, with children from professional or managerial backgrounds being most likely to participate, and those from families in manual occupations or with unemployed parents being least likely to take part.

The school-level analysis revealed that although most schools had a 'middling level' of participation in extra-curricular activities, there were also considerable variations between schools, ranging from nine per cent of the pupils reporting involvement in clubs/groups in one school, to 73 per cent in another.

An analysis of the relationship between participation (in teams etc.) and pupils' scores on tests of reading and mathematics showed a significant positive relationship between participation and progress in mathematics and reading. (The authors point out that although the relationships were statistically significant, they were also relatively weak.) There was no significant relationship between these variables at the school level. Further analysis, using pupil participation as the outcome measure, found that all the variables (i.e. sex, ethnicity, social class and Year 8 reading score) were significantly related to participation in extra-curricular activities, even when the effects of the other variables were taken into account. (In addition to the relationships identified above, this analysis showed that girls were more likely to participate in extra-curricular activities than were boys.)

Implications

The analysis of the relationship between progress in mathematics and reading and participation in certain extra-curricular activities led the authors to conclude: 'There is a link between participation and attainment, and between participation and progress in attainment, at the individual level.'

The authors identify four substantive points arising from their analysis of the relationship between participation in certain extra-curricular activities and other factors. First, schools were less successful with pupils from south Asian and 'other' backgrounds than with pupils from European backgrounds. The authors suggest that Asian families may be less willing to participate in what they see as 'fringe' activities, and ones not angled to their interests, habits or expectations. Second, the research indicated that schools are more successful in attracting girls to participate in extra-curricular activities than they are with boys. Third, that schools are more successful with children from middle class backgrounds, and fourth that schools doing well and badly in terms of participation in these activities are not the same as schools doing well and badly in terms of pupils' attainment and progress.

Reviewer's comments

This is a relatively large-scale study of school effectiveness: participation in certain extra-curricular activities comprised just one element of the study. The authors revealed evidence of an interesting pattern of participation related to pupils' gender, ethnicity and social class. It is interesting that although provision of these activities varied between schools, this did not appear to be related to school effectiveness. The use of statistical modelling enabled the researchers to identify a statistically significant link between participation in 'extra-curricular' activities and pupils' attainment and progress, after taking account of other influential factors (namely gender, ethnic group and social class). What cannot be determined from these analyses, however, is the precise nature of this relationship (i.e. whether participation contributed to pupils' academic achievement).

SMITH, F. and BARKER, J. (1997). *Profile of Provision: the Expansion of Out of School Care*. Uxbridge: Brunel University, Department of Geography and Earth Sciences.

Aims, sample and method

This research project aimed to explore the recent expansion of children's clubs and out of school hours care. The report was commissioned by the charity *Kids Clubs Network* which hoped to use the findings to heighten awareness of children's' needs and to contribute to the development of out of school provision.

In 1997, a questionnaire was sent by Kids Clubs Network to all 3500 kids' clubs in England and Wales. The survey followed a similar study conducted in 1994. The questionnaire requested information on each club's location, opening hours, number of places and organisational structure. By the end of June 1997, 1500 questionnaires had been returned (a response rate of 43 per cent). Information from the questionnaire was entered into the Kids Clubs database and the researchers used this to generalise to the total population (i.e. responses were 'grossed up' to represent all 3500 clubs).

Results

On the basis of the questionnaire responses, it was estimated that the 3500 clubs provided approximately 245,000 places for children in England and Wales. The research found that provision varied widely across the country. The highest concentration of Kids Clubs was in the West Midlands, London and the home counties of England. An analysis of the number of places for in relation to the population aged five-11 (derived from regional Census data) showed that more rural and more regional areas of England and Wales had relatively low levels of provision.

Most clubs offered between 21 and 25 places and just over 20 per cent said they had a waiting list for places. The majority of clubs had a minimum age limit of four or five years and a maximum age of 11 or 12 years. Nearly half of the clubs were attended by children with special needs.

There were a great many different types of premises used by Kids Clubs (such as community centres, church halls and youth centres), but over half of the clubs were situated in schools. In terms of organisation, just under half were run by voluntary committees or registered charities. The remaining clubs were run by a variety of organisations, including private businesses (15 per cent) and education/schools (13 per cent). Over three-quarters of clubs said they had received TEC funding to help them get established.

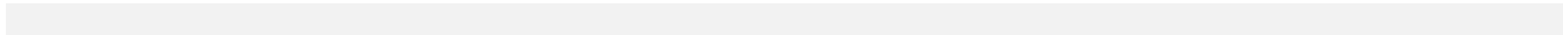
Most clubs offered after school sessions and a third of clubs were open both after school *and* during the school holidays. There were variations in opening hours according to where the clubs were located: rural clubs were more likely to be open at breakfast times, and clubs based in major cities were more likely to provide services during half term holidays than clubs in either rural or urban areas.

Implications

In a concluding paragraph, the authors draw attention to the ‘massive’ expansion in kids clubs, which resulted from the previous government’s *Out of School Care Initiative*. In the three years since the last survey, variations in the level and types of provision had decreased, although they are still ‘significant’. The levels of service provision are projected to increase still further in future, to provide up to a million places for children after school and in the school holidays.

Reviewer’s comments

The authors acknowledge several limitations of their study, which should be borne in mind when considering the results. For example, although they were responsible for analysing and writing the report, the researchers played no part in the design or administration of the questionnaire (and therefore may have misinterpreted the meaning of some of the responses). They point out that Kids’ Clubs Network’s mailing lists may have had an over representation of a certain type of club, and that variations in response rates may limit the generalisability of the findings. Some counties provided a very small number of responses: where this was the case, the researchers refrained from commenting on trends based on small numbers of respondents.



TIERNEY, J.P., GROSSMAN, J.B. and RESCH, N.L. (1995). *Making a Difference: an Impact Study of Big Brothers/Big Sisters*. Philadelphia, PA: Public/Private Ventures.

Aim, sample and method

This is an evaluation of the Big Brothers/Big Sisters (BB/BS) one-to-one mentoring programme in the USA. The authors aimed to assess the effectiveness of mentoring, including whether there was evidence of 'improved academic outcomes' of pupils involved in the scheme.

BB/BS is a nation-wide organisation which provides funding, support and a set of criteria for good practice. Local agencies are formally designated a BB/BS programme, by satisfying the standards criteria. The standards govern a number of aspects, namely: the screening and acceptance of both mentor and mentee; the training taken by the volunteers; the matching process; frequency of meetings; and the supervision of matches (which involves contact between the agency and adult volunteers, the young people and their parents).

The study involved eight local BB/BS agencies from different areas of the USA. The agencies were selected because they were amongst the largest: this ensured adequate numbers of young people in the sample while minimising the effect of the research on the individual sites.

The research compared participants in the BB/BS programmes with those who were eligible but had yet to take part. The sample comprised young people aged between 10 and 16 years old (93 per cent were between 10 and 14). Just over 60 per cent were boys, and more than half were from ethnic minority backgrounds. The majority of the sample were from low income households, and a high proportion came from households with a prior history of either family violence or drug abuse.

Baseline interviews were conducted with 959 young people who were eligible for the scheme. They were then randomly assigned to either the treatment group (378 students), who took part in the scheme, or to the control group (581 students), who remained on a waiting list for a period of about eighteen months before joining. There were no significant differences between the two groups in terms of background characteristics, such as age, sex, ethnicity, family receipt of welfare payments, or emotional self-worth.

Those in the treatment group were matched with a Big Brother or Sister, and received agency support and supervision. The majority of the mentors were college graduates who had managerial or professional status. The mentoring programme ran for 12 months on average, with meetings about three times a month, lasting four hours a session.

To find out whether participation in the mentoring programme had been beneficial, the researchers gathered information from parents and case manager. The impact of the scheme on the young people was measured in terms of their self-reported behaviour and attitudes. Both groups of young people were interviewed at the beginning of the programme and re-interviewed 18 months later. Six broad areas where mentoring might have an effect were identified by the authors. These were: participation in antisocial activities; academic performance; attitudes and behaviour; relationships with family and friends; self concept; and social/cultural enrichment.

Results

In terms of academic performance, mentees reported attending school significantly more frequently, and feeling more competent about doing school work than the control group. Mentees reported achieving slightly higher grade-point averages (GPAs) than the control group (the mean GPA was 2.71 for mentees and 2.63 for the controls). This was a statistically significant difference ($p < 0.01$). Time spent doing homework or reading, and scores on a 'school value' scale, did not differ significantly between the groups.

Certain aspects of anti-social behaviour (namely their likelihood of initiating illegal drug and alcohol use, and number of times they had hit someone) were significantly less frequent among the treatment group than among the controls. Other aspects, namely the incidence of theft and property damage, did not differ between the groups.

The treatment group obtained positive results in certain aspects of their relationships with parents and friends (better relationships with parents; greater degree of trust in parents; lower incidence of lying to parents; and 'emotional support' among peers). There were no statistically significant differences on measures of communication or anger and alienation.

There were no statistically significant differences between treatment and control groups on measures of self-concept, or on the students' level of participation in social and cultural activities.

Implications

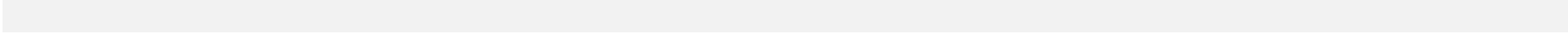
The report's authors conclude that the programme has enabled a caring relationship to be established between individual adults and young people and that this yields a wide range of tangible benefits. The authors consider the most important results to be a deterrent effect of mentoring on initiation of drug and alcohol use. The evidence of significant differences in GPA is considered to be 'very encouraging' because: 'Non-academic interventions are rarely capable of producing effects in grade performance' (Tierney *et al.*, 1995, p. iv). The authors consider the standards and support provided by the BB/BS scheme to be critical elements in ensuring its success. While acknowledging the costs

(approximately £1,000 per matched pair) and the possible difficulties in finding sufficient mentors, they suggest that such programmes should be expanded to reach more young people in future.

Reviewers' comments

This is a thorough and apparently well-conducted evaluation. The design is an ingenious solution to the problem of establishing equivalent treatment and control groups, and has the added benefit of random allocation from among the volunteers.

The results appear to be supported by the evidence. However, the behavioural measures rely on self-report data and it is possible that the mentees were less likely to report anti-social behaviour because they were aware that this would not meet with the approval of their mentors (rather than this being a true reflection of their behaviour). Although the researchers state that information was collected from parents, mentors and programme officials, (which may have helped to corroborate the students self-reports) this does not appear within the report.



TOWER HAMLETS STUDY SUPPORT PROJECT (1997). *Closing the Gap: Tower Hamlets Study Support Project, June 1997*. London: Tower Hamlets Study Support Project.

Aims, sample and method

The purpose of this research was to evaluate the effectiveness of a study support initiative within the borough of Tower Hamlets. Study support centres have been established in many of the authority's secondary schools, as a means of tackling underachievement. They aim to provide an informal environment for homework and study after school, at weekends and in the school holidays. The initiative was funded by a number of organisations, including the Prince's Trust.

The main focus of the research was on the relationship between students' GCSE attainment and the provision of study support. The research used two samples to investigate the impact of study support at the school and student level. In the first of these, GCSE data were gathered from 14 secondary schools in the authority, eight of which had participated in a number of study support initiatives. The schools had participated for between 18 and 37 months, and offered different types of support, ranging from short-term, intensive schemes to long-term support. The analysis considered the relationship between the length and extent of participation in the study support scheme and the schools' average GCSE performance (percentage of students achieving five or more A* - C grades) over the three-year period 1994-6.

The second part of the study considered the impact on students of an exam revision scheme in five of the 14 schools. This initiative was introduced in Spring 1995, and aimed to help Year 11 students to revise for their GCSE examinations. (Four of the five schools were involved in other study support initiatives in addition to the revision scheme.) The researchers analysed the GCSE results of 705 Year 11 students. About two-thirds of the sampled students were from ethnic minority backgrounds. The sample of students comprised two groups: exam revision attendees and non-attendees. Because attendance at the provision was voluntary, the composition of these groups was determined by the students themselves. The groups were roughly comparable in terms of gender balance and in terms of size (398 attendees; 307 non-attendees). The five schools were sampled at random: the general level of examination achievement in the selected schools was in the mid-range of achievement for schools in the borough as a whole.

The study gathered teachers' predictions of students' GCSE grades in three core subjects (English, mathematics and science). The actual performance of students in the 1996 GCSEs was then compared with the teachers' predictions. The analysis considered the extent to which students attending the revision support had performed at or above the predicted level. In order to avoid the possibility of bias, teachers' GCSE

predictions were gathered before the start of the exam revision classes, and teachers were not informed that their predictions would be used to evaluate the impact of the revision scheme.

Results

The school-level analysis showed that the eight schools offering study support experienced an overall increase of 30 per cent in the average proportion of students gaining five or more A* - C grades at GCSE between 1994 and 1996. The average increase in the six schools without provision for study support was three per cent.

Although the trends in results for individual schools varied in direction and magnitude, there was a positive correlation between the length of time schools had offered study support and the increase in the proportion of students gaining good GCSE scores ($r = 0.65$). Schools offering long-term study support programmes were found to have more positive trends in GCSE results than those offering short-term, intensive support.

In the second part of the study, differences between predicted and actual GCSE results favoured students who had attended the revision programme. As far as the students who did not attend study support were concerned, teachers' predictions of GCSE attainment in the core subjects were found to be fairly accurate. By contrast, a higher proportion of the revision attendees achieved better grades than predicted (40 per cent of attendees achieved at least one grade better than predicted, compared with 20 per cent of non-attendees). It is impossible to know whether this is a statistically significant difference because no tests of statistical significance are reported.

Implications

The authors conclude that study support in Tower Hamlets has had a significant effect on GCSE attainment. Results from 14 schools indicated that students who benefited most were those who had access to an extensive study support programme (homework clubs, supplementary schools, exam revision and curriculum enrichment schemes). However, the authors recognise that the relationship between attendance at study support and GCSE results is not simply one of cause and effect. Other explanations for examination success are noted by the authors, and these are summarised below.

- The 'Teacher Expectation' effect. Teachers may create 'self fulfilling prophecies' so that students attending revision clubs are expected to succeed, whereas those who do not attend are expected to do less well. Teachers' positive and negative expectations may be communicated to students through such means as comments and class groupings.
- The 'Enthusiastic School' effect. In a 'good' school, pupils benefit from a motivated staff, with high morale, effective planning, sound homework policies and effective management. Such schools are more likely to adopt innovative schemes to enhance the already positive environment.

- The ‘Motivated Student’ effect. Motivated students are most likely to attend revision clubs and to achieve highly. The added benefits of extra study provision may simply enhance their chances of success further.

The authors suggest that future research could include qualitative analysis of students’ attitudes in addition to the quantitative analysis of attainment and attendance data. By using a combination of research methodologies, a deeper understanding of the value of study support could be achieved.

Reviewer’s comments

This is an interesting, fairly small-scale evaluation of a study support and revision scheme operating in one LEA.

There are, however, some limitations in design and reporting that affect the interpretation of the results. For example, it is not clear to what extent the schools offering study support were similar in other respects to the comparison schools. The tables and diagrams do not state the number of students on which percentages are based, and the only statistics quoted are averages and correlations. Because of this, important differences between schools may be masked (for example, one of the schools participating in the study support scheme experienced a decrease in GCSE results of seven per cent, and one non-participating school experienced an increase of 16 per cent in the three-year period).

The data regarding school effects are highly dependent on the chosen starting date (1994) and do not take account of differences in the cohorts of students, or of other influences on the schools during the three-year period. Nevertheless, the results are consistent with the view that the schools participating in study support experienced more positive changes in their GCSE results than those which did not participate.

The second part of the study is better designed to consider the effects of revision support on student performance. From the data presented, there appears to be a significant difference favouring the revision attendees. (There would also appear to be a greater dispersion of results among the revision attendees.) More sophisticated data analysis would have enabled these differences to be pursued.

Overall, the study is interesting, and would appear to be broadly supportive of the positive effects of participation in study support. The authors are to be commended for their willingness to explore a number of alternative explanations for their findings.

WATTS, A. and HILLMAN, S. (1997). Participation in Out of School Activities at Hartcliffe School with Particular Reference to the Arts. Unpublished report.

Aim, sample and method

This report describes research conducted by the charity *Education Extra* in collaboration with a secondary school. The report was prepared for the Bristol and West Building Society, which sponsors some of the school's study support provision. The research aimed to find out whether participation in out of school activities had a positive effect upon pupils' attitudes and academic attainment.

The report gives no details about the school or its population. However, it is clear that the school offers a wide range of study support activities, with a particular focus on curriculum extension (e.g. football, netball, instrumental music lessons, choir, drama, dance and musical productions, pottery, painting, chess club, community service and youth awards).

Approximately 330 pupils in Years 9, 10 and 11 completed a questionnaire about their participation in a range of activities outside school (both those organised by the school and the pupils' own extra-curricular activities). (There is no information on the number of pupils in these year groups and it is therefore impossible to calculate the questionnaire response rate.) The questionnaires enabled the school to identify three broad categories of pupils: those who were highly active; those who had participated in the past but were not currently active; and those who were not interested and did not participate in any activities.

Small groups of between one and three active and non-active pupils were interviewed about their participation and attitudes. A total of 43 pupils were interviewed from all three school years.

Information from the initial stages of the project yielded information on pupils' participation levels and interest in out of school activities. An addendum to the main report summarises results of further analyses. These examined the association between pupils' participation in and attitudes to out of school activities and their GCSE results. In this part of the research, the answers given by the 110 pupils to certain survey questions are considered in relation to their GCSE attainment.

Results

The survey found that over two-thirds of pupils at Hartcliffe school took part in sports activities outside school time, and a fifth participated in arts activities.

Over a third of pupils participated in activities organised by the school (after school, before school, at lunchtimes, at weekends or in the holidays). Younger pupils (i.e. those in Year 9) were more likely to participate than those in Years 10 and 11. Sports activities were the most popular, and boys were more likely to participate in school-organised sport than were girls. Drama was the most popular type of arts activity.

Very few pupils did their homework at school, and interviews with pupils revealed that they had mixed feelings about doing so.

Pupils reported a number of benefits from participating in extra-curricular activities. These included gaining confidence, self-esteem and a sense of achievement. Pupils who intended to progress to post-compulsory education were found to value extra-curricular activities more highly than those who were planning to leave school at 16.

The information on pupil ability and progression was limited. For 'some' pupils in Years 9 and 10, scores were available from tests of reading, verbal reasoning and non-verbal reasoning spanning a two- or three-year period. There was found to be 'a connection' between improvements in verbal reasoning scores and participation in extra-curricular activities. However, there was no noticeable relationship between changes in standardised reading and non-verbal reasoning scores and participation in extra-curricular activities.

The association between participation in extra-curricular activities and GCSE attainment was addressed by an analysis of responses from 110 Year 11 pupils who had taken up to nine GCSE subjects. Pupils were categorised as either 'not active' or 'active/neutral' on the basis of their current and previous participation in and attitudes towards extra-curricular activities. (This grouping was selected because only five pupils could be described as currently 'active' participants). The main findings of this part of the research can be summarised as follows:

- there was a non-significant trend for pupils who considered extra-curricular activities to be important to gain better GCSE results;
- fewer of the 'not active' pupils gained five A-C passes at GCSE ($p < .01$).

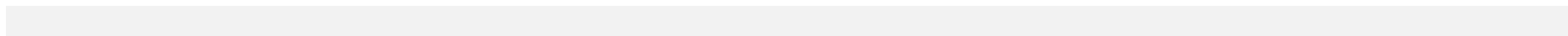
Implications

The authors consider that their survey has highlighted the educational, social and life-enhancing benefits to pupils of involvement in study support. It is argued that without the school's provision, many pupils would not have had these opportunities. The authors conclude that the school's programme of activities has made a substantial contribution to the school's popularity and to improvements in external examination results.

Reviewer's comments

This is an interesting example of research conducted by one school. It is unfortunate that the school test data are incomplete because this undermines the value of the analyses, as the authors acknowledge. The results of the GCSE analysis are open to alternative explanations: for example, it is possible that low-attaining pupils participated less in extra-curricular activities because they were struggling to meet the demands of their coursework. It is also possible that other factors, such as the degree of family support, were related to both participation in activities and

GCSE performance (the authors point out that the analyses did not take into account the effects of external variables such as family background, attitudes and support).



WOOLNOUGH, B.E. (1991). *The Making of Engineers and Scientists*. Oxford: Oxford University, Department of Educational Studies.

WOOLNOUGH, B.E. (1994). 'Factors affecting students' choice of science and engineering', *International Journal of Science Education*, **16**, 6, 659-76.

Aims, sample and method

In response to the need to recruit more scientists and engineers, this research investigated the factors affecting secondary students' decisions to take higher education (HE) courses in science or engineering.

The research was conducted in two phases. In Phase 1, the researcher sent a questionnaire survey to the heads of science in a sample of 559 English (?) schools and colleges. Responses were received from 132 heads of science in 122 schools/colleges (22 per cent). The questionnaire asked for information on the proportion of students going on to HE that were taking science or engineering, and on the proportion of sixth-formers with five GCSE passes who were going on to study science/engineering in HE. Each school's 'bias' towards producing physical science or engineering undergraduates was calculated. Information was also sought on the type of learning activities in science lessons and the extra-curricular science activities available to students.

In Phase 2, the researcher identified 15 schools and colleges that were particularly successful in science. The schools were selected on the basis of an analysis of the HE destinations of their students (derived from the questionnaire survey) supplemented by recommendation from 'local experts in science education'. The sample comprised eight comprehensive schools, two selective, two independent schools and three sixth-form colleges. The researcher visited schools to interview staff and students. The researcher administered a questionnaire survey to 1180 Year 13 students intending to enter HE (the proportion of Year 13 students who responded to the questionnaire is not stated). The student questionnaire sample contained a higher proportion of males (57 per cent) than females. The majority (61 per cent) of the responding students were intending to take non-science courses in HE.

The student questionnaire consisted of four sections, concerning: background factors; attitudes towards science activities; influences on science/engineering career choice; and personality. Items concerning extra-curricular science activities included: involvement in science clubs (defined as 'photography, radio etc.');

involvement in science competitions; visits from scientists and engineers; and science-related work experience. These items were combined for the purposes of factor analysis.

The analysis in Phase 1 focused on the relationships between school-level factors and the schools' success in producing science and engineering students. In Phase 2, the analysis focused on differences in response between scientists and non-scientists, and males and females.

Results

In relation to extra-curricular provision, there was a significant positive correlation between provision of extra-curricular science activities and two school-level outcome measures: the proportion of sixth-formers with five GCSEs going on to take HE courses in science and engineering, and the school/college bias towards producing engineering undergraduates.

At the student level, there were no significant differences between students studying science and those studying other subjects on their ratings of an item concerning attitudes towards science clubs ('Involvement in science clubs is an unhelpful distraction from the learning of real science'). Similarly, when students were asked to rate the importance of the influence of a number of factors on their orientation towards or away from science, 'involvement in science clubs' did not differentiate between scientists and non-scientists. However, students' views on the influence of other extra-curricular science activities (namely 'outside speakers and visits to local firms', 'local engineers coming to the school', 'work experience in local companies' and 'involvement in science competitions') differed significantly between scientists and non-scientists. When factor analysis was used, the five items relating to extra-curricular science activities emerged as a positive influence towards science for some students. Further analysis revealed that students intending to study engineering rated these activities as positive influences towards science.

Implications

The author suggests that there is 'consistent evidence' that a school's provision of extra-curricular science activities is an important factor in encouraging students to opt for HE courses in science and engineering. He recommends that science teachers should be encouraged to develop extra-curricular activities in science and technology, which a particular emphasis on science competitions and establishing relationships with locally-based science industries.

Reviewer's comments

This research indicates that there is a relationship between provision of extra-curricular science activities and students' decisions to opt for science or engineering courses. However, the disappointing response to the school survey affects the generalisability of the findings, as the author acknowledges. In discussing this, he suggests that the responding schools and colleges were more successful at producing students opting to study HE science and were more committed to science than is true of all secondary schools and colleges.

The relationship between a school's provision of extra-curricular science activities and the production of science and engineering students is open to other possible interpretations than that suggested by the author. For example, a school with an orientation towards science may be more likely to provide science clubs, visits, work-experience and involvement in competitions (i.e. extra-curricular activities may be a reflection,

rather than a cause of a school's emphasis on science). It is also difficult to interpret the findings relating to differences in ratings between students who had chosen science/non-science HE courses, because non-scientists may not have experienced some of the science-related extra-curricular activities noted in the questionnaire.

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Appendix

Research Methods

The project had three strands: a review of descriptive reports and opinion pieces; a review of the research literature; and an ‘expert review’, consisting of interviews with key people involved in study support provision and research.

The literature reviews

The methods used to identify relevant material for the literature reviews were thorough and wide-ranging. These included database searches and access to some of the LEA reports held by the NFER’s Educational Management Information Exchange (EMIE).

In order to widen the search, the team contacted certain organisations (such as the Arts Council of England, the Sports Council and the Football Association Premier League) by letter and telephone to obtain details of relevant publications. The DFEE drew our attention to a number of newly-published reports. The experts interviewed as part of the project were also asked to identify descriptive reports and research studies.

The following databases were searched for relevant published material:

- ASSIA (an index of articles from international English language social science journals);
- PsycLIT (an international database of references to the psychological literature);
- CHILDDATA (five databases of publications on the education, health and welfare of children and young people);
- ERIC (Educational Resources Information Centre database);
- INTERNATIONAL ERIC (a combination of the British Education Index, British Education Theses Index, Australian Education Index and Canadian Education Index).
- The NFER library’s own bibliographic database.

The database searches were confined to publications from 1988 (the date of the Education Reform Act) to 1997 (the year in which the review began). Although the search included material from other English-speaking countries, priority was given to material originating in the UK (particularly England and Wales).

The keywords used in the searches were as follows:

- after school education;

- extended school day;
- extra-curricular activities;
- extra-curricular activities and educational research (ERIC only);
- field studies centres;
- homework;
- homework centres (ProCite only);
- mentors;
- summer schools;
- summer programmes.

We experienced some difficulty in using the established keywords to focus on relevant material for the review. For example, we were able to identify only one reference in the ERIC database using 'out of school activities' as a keyword identifier, and this item was not found to be relevant to the interests of the review. Although we would have liked to search using more pertinent keywords (such as 'out of school hours learning' 'study support', or 'homework clubs/centres') the commercially available databases do not currently keyword publications using these terms. This probably reflects the fact that study support is a relatively new concept. It is therefore possible that there is some further literature about study support schemes that we were unable to identify because its connection with study support was not apparent from the database entries.

In total, over 120 books, articles and papers were ordered. There were no pre-determined quality parameters for inclusion, and no studies were rejected from consideration on the basis of poor quality. However, many pieces of literature had to be rejected because they were not relevant to the interests of this study.

As each piece of literature was obtained, members of the research team categorised it as a research study or descriptive report, and identified any further material of interest in the list of references. The final selection included articles and books reporting on 62 studies or initiatives: 28 research-based studies and 34 descriptive/opinion pieces.

Structured reviews were prepared for each piece of literature (these are presented in Sections 2 and 3). The purpose of the reviews was to summarise the main points of interest in each report or article and, in the case of research, to assess the quality of the findings. All highly

statistical pieces of research were passed to an experienced statistician for a second opinion. The preparation of the structured reviews and summaries (Tables 2.1 and 3.1) assisted the process of data analysis.

The expert review

This strand of the project drew on the experience of people active in the field of out of school hours provision, in order to illuminate issues and to add to the findings from the literature review. Interviewees were selected by the NFER in consultation with the DfEE. They included representatives from organisations with a national brief for encouraging, coordinating and/or funding study support, together with individual researchers experienced in evaluating this kind of work. Nine organisations and individuals were contacted, all of whom agreed to take part in an interview lasting about an hour.

The following people took part in the interviews:

- Kay Andrews and Richard Thompson, Education Extra;
- Lisa Capper, Community Education Development Centre;
- Jenny Hand, National Youth Agency;
- Maggie Hollingsworth, OFSTED;
- Tony Kirwan, The Prince's Trust - Action;
- Anne Longfield, Kids Clubs Network;
- John MacBeath, University of Strathclyde;
- Kate Myers, Keele University;
- Anthony Tilke, the Library Association.

The interviewees spanned a wide range of experience and backgrounds. Three of them represented organisations with a national remit for supporting after-school childcare clubs (Kids Clubs Network) and out of school learning activities (Education Extra). Other organisations, such as the Community Education Development Centre and the National Youth Agency, have a broader brief for youth and community work, including 'educational' provision for young people out of school hours.

The Prince's Trust is a charitable foundation which supports projects aiming to help disadvantaged young people. The Prince's Trust - Action has been set up to help young people to access educational opportunities through a national initiative on study support.

OFSTED has a broad remit for ensuring standards of education through inspection, and HMI Maggie Hollingsworth was a member of the steering group for the Prince's Trust study support project. The Library Association represents librarians working in public libraries, school libraries and the school libraries service. Many librarians have a role in providing support for young people's reading, homework and study; in some cases, librarians are involved running specific study support activities (e.g. in developing children's research and study skills and through involvement in summer literacy schemes).

Professors John MacBeath and Kate Myers are academics who have extensive experience of advising and evaluating study support schemes. They are currently involved in the longer-term evaluation of the Prince's Trust study support scheme.

The interviewees were asked a series of questions relating to their experience of study support, the benefits of involvement for pupils and others, factors contributing to effective provision and future priorities for the development of study support provision in this country. The interviewees' responses to each question were coded as a basis for analysis.

